SAN FRANCISCO

DEPARTMENT OF CITY PLANNING

100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102

San Francisco City Planning Commission

Environmental Impact Report

ONE SANSOME BUILDING

FINAL
EE 78.334
State Clearinghouse Number 81041414

Publication Date:	10 April 1981
Public Comment Period:	10 April 1981 through 26 May 1981
Public Hearing Date:	14 May 1981
Certification Date:	6 August 1981

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I. SUMMARY

A. PROJECT DESCRIPTION

Citicorp, the parent company of the nation's second largest commercial bank, Citibank N.A., headquartered in New York, proposes to develop a high-rise multi-tenant office building on Lots 3 and 4 of Assessor's Block 289 at the northwest corner of Sansome and Sutter Streets in downtown San Francisco to meet its own needs for office space and those of other tenants. The site is currently occupied by the Holbrook Building (58 Sutter) and the Anglo-California branch of Crocker National Bank, formerly the Anglo and London Paris National Bank (One Sansome). The project would involve demolition of 58 Sutter and retention of most of the facade of One Sansome.

The proposed building would be a 40-story office tower, approximately 560 feet high, including 36 office floors, a retail arcade at ground level, a mezzanine, 2 mechanical floors and a basement. Retained and relocated portions of the existing One Sansome facade would enclose a public entry court east of the new tower along Sansome Street. The facade of the new building would be composed of pre-cast concrete, incorporating as an aggregate the same Sierra White granite used in the facade of the existing One Sansome Building, with windows of solarcool gray glass. The gross area of the building excluding mechanical floors and basement would be 728,200 square feet, **with an FAR of 21.5 to 1,** including 603,700 square feet of occupiable office space, a 10,900 square foot mezzanine for banking or retail use and 6,500 square feet of ground level retail space. Building entrances would be located on both Sansome and Sutter Streets. An escalator would connect the ground-level retail arcade to the mezzanine level. The 38th and 39th floors of the office tower would be

designed and leased together as a

separate two-story space with recessed windows and balconies. No on-site parking would be provided; a loading dock with 3 spaces for delivery vehicles would be accessed from Sutter Street. Citibank would initially occupy 5 floors or about 100,000 square feet of space for its own use, with eventual occupancy of about 150,000 square feet.

Following approval of the project and issuance of necessary permits, demolition would begin in summer 1981 and would take about 2 months. Excavation and construction would continue for about 22 months until project completion and occupancy in summer 1983.

B. ENVIRONMENTAL EFFECTS

The project would require complete demolition of the Holbrook Building, rated "3" in the Department of City Planning's 1976 Inventory of Architecturally Significant Buildings and "B" by the Foundation for San Francisco's Architectural Heritage in its downtown building inventory, Splendid Survivors. Only the Sansome Street facade and a portion of the Sutter Street facade of the existing One Sansome Building (Anglo and London Paris National Bank), rated "5" in the 1976 Inventory of Architecturally Significant Buildings and "A" in Splendid Survivors, would be preserved. The loss of the One Sansome Building would reduce the number of monumental banks in downtown San Francisco.

The new tower would maintain the uniform street facade along Sansome Street created by the arches of the Standard Oil Building and One Sansome. The tower would be similar in height to other nearby downtown high-rise buildings and would not be a dominant feature in the City skyline. Some views of the Bay from the Equitable Building and to the south from the Standard Oil Building would be obstructed. The project would provide a retail arcade and an outdoor public entry court with seating,

fountains, sculpture and landscaping enclosed by the retained facade elements.

The project would comply with applicable zoning regulations; interim downtown controls adopted in June, 1980 do not apply to the proposed project.

Traffic on Sutter Street would be disrupted intermittently by trucks entering and leaving the site during the 2 years of project construction. A bus stop along Sutter Street would have to be relocated during this period. Traffic generated by the proposed project would increase volumes on surrounding local streets, but would not measurably reduce levels of service. The project would increase local transit ridership and pedestrian traffic in the vicinity of the site.

Project-generated traffic emissions would contribute to local and regional cumulative air quality impacts caused by development under construction or proposed for the downtown area.

The project would shade a strip approximately 20 feet wide across Sansome Street and along a part of the northeast corner of the Crown Zellerbach Plaza at mid-day in the fall and spring. During the summer, the project would shade a strip approximately 70 feet wide across Sansome Street and a portion of the western edge of the plaza.

During the 12 months of demolition, excavation, foundation and erection of the building structure, construction noise would be heard by pedestrians and occupants of nearby buildings.

The project would be designed and constructed in compliance with standards for energy conservation established by the California Energy Commission. Annual electrical consumption

would be about 11.4 million kilowatt hours; annual natural gas consumption would be about 28.1 billion British Thermal Units.

The project would increase required water, sewer, solid waste disposal, telephone, police and fire protection services due to the increase in the scale of development, but would not require additional capacity, equipment or staff of such services to meet project demands. It would provide approximately 600 person years of construction employment. Permanent employment at the project site would increase to 3,100 persons. Approximately 43 businesses, mostly small commercial offices employing a total of about 360 persons, would be displaced from the site. After completion, the project would generate a net increase of about $990,000 in property tax revenues. The project would result in additional annual costs of approximately $65,000 for MUNI service. The project could generate up to 4085 new jobs in the City and result in a demand for up to 910 housing units in the City thereby contributing to increasing housing costs and decreasing vacancy rates.

C. MITIGATION MEASURES

Most of the facade of the existing One Sansome Building would be retained in place and restored to preserve some historic and architectural qualities of the site, to create a distinctive outdoor space and to retain a uniform building edge along Sansome Street. Scale drawings of the site and existing buildings would be prepared and deposited with the Library of Congress. Historical plaques, commemorative markers or photographic displays would be installed at the site as reminders of the demolished buildings.

The project would be set back from adjacent buildings to reduce view disruption and shading of Crown Zellerbach Plaza. A retail arcade and enclosed public entry court with fountains, sculpture, seating and landscaping would be provided to enhance

the visual and street level amenity. Part of the mechanical penthouse would rise above the top of the tower and the upper two floors would include balconies and recessed glass to distinguish the proposed project from other highrise buildings in the area and to contribute to a more varied skyline.

The project would provide direct access to the BART/MUNI-METRO station to encourage use of public transportation, and to reduce street traffic and pedestrian traffic on the sidewalk. An arcade along Sutter Street would increase the effective sidewalk width to improve pedestrian movement.

Construction loading would be behind barricades to reduce vehicle conflicts. BART tickets and MUNI fast passes would be offered to construction workers to encourage transit use. The site and truckloads of debris would be watered down to reduce dust. Holes for foundation piles would be pre-drilled to reduce noise impacts. Local streets adjacent to the site would be swept daily during construction to prevent siltation of storm drains.

Energy conservation features include insulation of exterior walls and roof, sealing of the building envelope, variable volume air conditioning, dual level lighting controls and recessed fixtures.

A stationary trash compactor and building security desk would be provided to minimize demands on solid waste disposal and police services.

D. ALTERNATIVES

One alternative to the proposed project would involve complete preservation of the existing One Sansome Building with demolition of the Holbrook Building and construction of a 38-story square office tower on the site. The tower would

cantilever 25 feet over the existing One Sansome Building, and would have a height of 535 feet, 25 feet less than the proposed project. No retail or public open space would be provided.

An alternative preserving both the Sansome and Sutter Street facades of the existing One Sansome Building would involve construction of a 40-story rectangular office tower similar to the proposed project. The tower would be of the same dimensions as the proposed project, but would be cantilevered over the Sutter Street facade, which would be retained as a free-standing element in front of the tower's lobby.

An alternative conforming to the 1980 interim downtown zoning controls would involve demolition of both the One Sansome and Holbrook Buildings with construction of a new 24-story rectangular office tower on the site. The height of the new tower would be 380 feet, 180 feet shorter than the proposed project with approximately 1/3 the floor area. A retail arcade would be provided, but no public open space.

The "no-project" alternative would entail no change to the project site as it now exists. Both the One Sansome and Holbrook Buildings would be retained and present uses would continue. This alternative would preserve options for future development of the site.

II. PROJECT DESCRIPTION

A. PROJECT OBJECTIVES

Citicorp, the parent company of the nation's second largest commercial bank, Citibank N.A., headquartered in New York, proposes to develop a high-rise, multi-tenant office building at the northwest corner of Sansome and Sutter Streets in downtown San Francisco (Figure 1). The project architects are William L. Pereira Associates, Los Angeles, who also designed the Transamerica Building and 505 Sansome Street in San Francisco. The project is proposed by Citicorp to meet a need for centralization of its San Francisco staff of about 500 persons, and to accommodate future growth to at least 750 persons, as well as to meet a demand for office space and earn a financial return on their investment in the property.

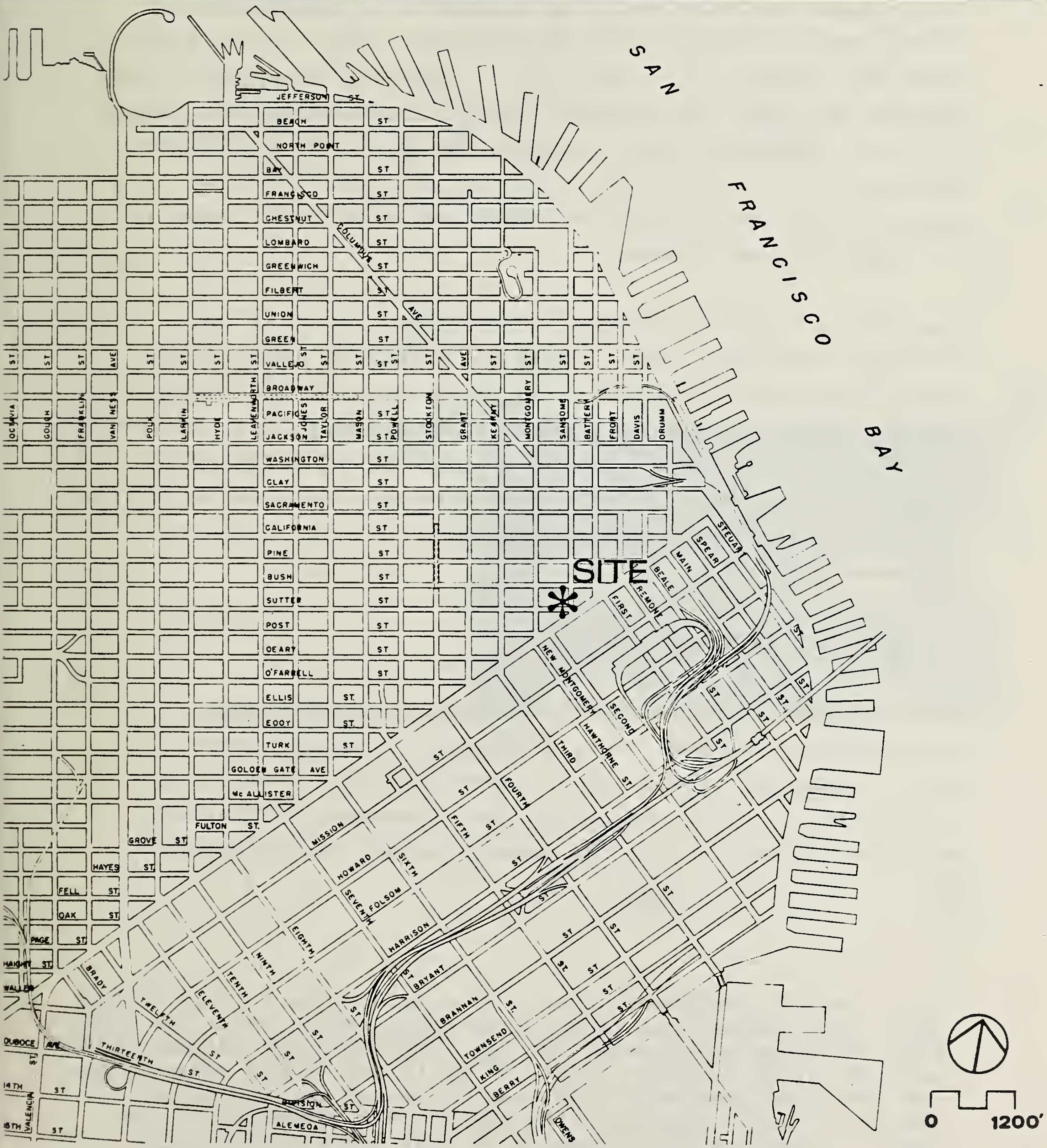
The project is intended to be a functional part of the Downtown Office District which is described in Section 210.3 of the City Planning Code (Part II, Chapter II of the San Francisco Municipal Code) as "playing a leading national role in finance, corporate headquarters and service industries, and serving as an employment center for the region", and which consists "primarily of high quality office development". Citicorp would initially occupy 5 floors, or about 100,000 square feet of space for its own use, with eventual occupancy of about 150,000 square feet.

The sponsors propose to include a ground-level retail arcade and a public entry court enclosed by the Sansome Street and portions of the Sutter Street facade of the existing One Sansome building. The intent is to create a unique, street-level environment to enhance pedestrian activity in and around the site, while preserving historical and architectural qualities associated with the existing building.

figure 1

SITE LOCATION

Source: San Francisco Department of City Planning



B. PROJECT LOCATION

The proposed building would be located on an approximately 33,900 square foot site included in Lots 3 and 4 of Assessor's Block 289 (Figure 2).[1] The site is currently occupied by the Holbrook Building (58 Sutter), and the Anglo-California branch of Crocker National Bank, formerly the Anglo and London Paris National Bank (One Sansome). The project would involve demolition of the Holbrook Building and retention of most of the facade of One Sansome.

The site is centrally located with respect to major San Francisco financial institutions and corporate headquarters which occupy high-rise office buildings on this and adjacent blocks. The Equitable Building (120 Montgomery), is located directly west of the site and the Standard Oil Building (225 Bush) is to the north. The Crown Zellerbach Building and Plaza are across from the proposed project on the east side of Sansome Street.

C. BUILDING DESIGN AND PLANS

The proposed building would be a 40-story office tower, approximately 560 feet high, including 36 office floors, a retail arcade at ground level, a mezzanine for banking or retail use, 2 mechanical floors and a basement. Retained portions of the existing One Sansome facade would enclose a

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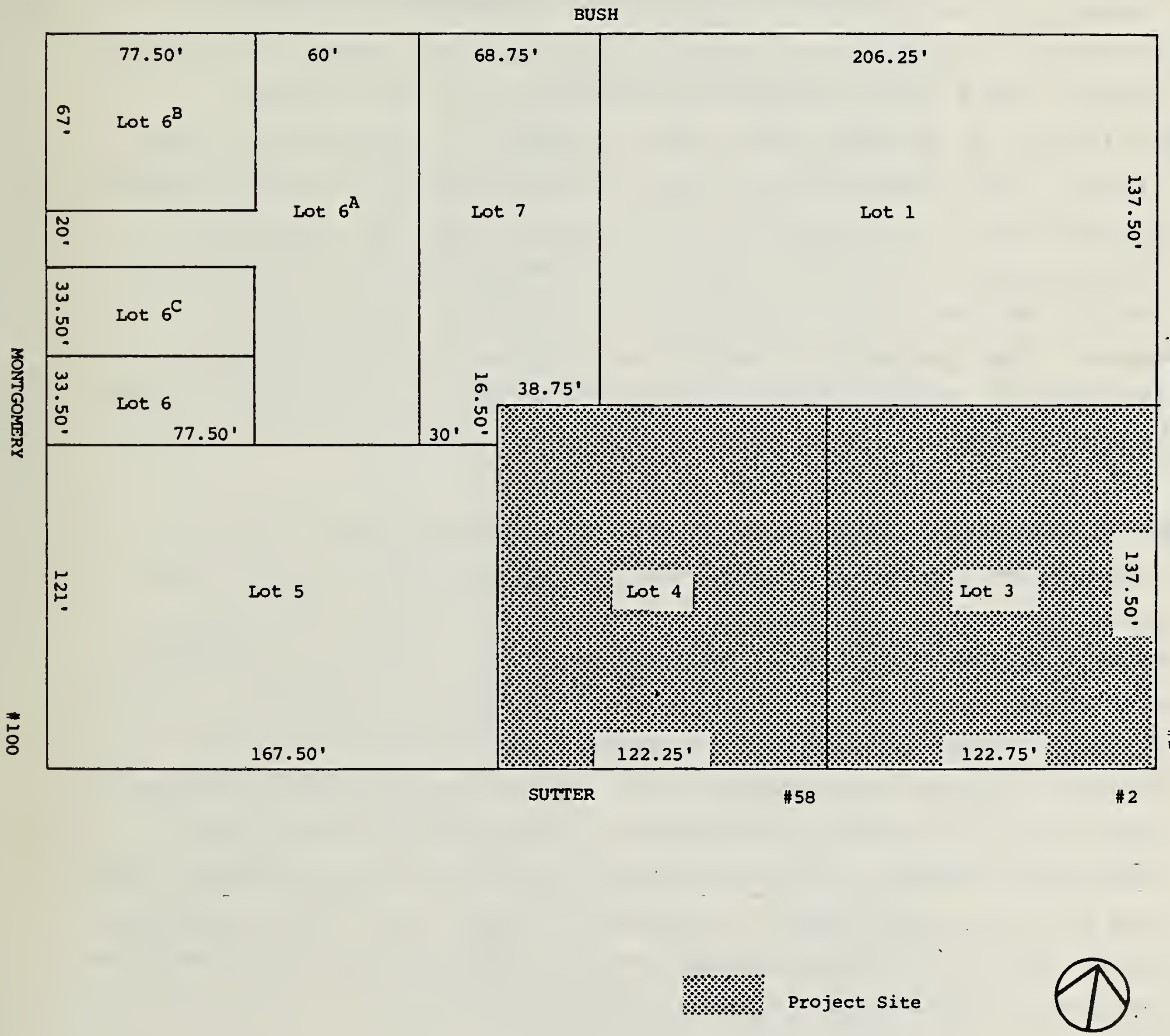
[1] Chin & Hensolt Engineers, Inc., Site Survey for Citibank, July 1980. This survey involving field measurements and a map filed after the 1906 earthquake with the City Engineer indicate a lot area of 33,886.56 square feet, which is 199 sq.ft. greater than the area indicated on the Assessor's parcel map due to an additional 9-3/4 inches in the north-south dimension of the block. A copy of the survey is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

figure 2 ASSESSOR'S BLOCK 289

Source: San Francisco Assessor's Office



public entry court east of the new tower along Sansome Street, containing fountains, seating and landscaping. The public entry court would be protected from wind and partially covered by a pleated glass roof providing some protection from weather while allowing air and light to filter into the area. The facade of the new building would be composed of pre-cast concrete, incorporating marble chips and the same Sierra White granite used in the facade of the existing One Sansome building, as an aggregate, with windows of "solarcool" gray glass.[1] The gross area of the building would be about 809,900 square feet,[2] including 603,700 square feet of occupiable office space, a 10,900 square foot mezzanine for banking or retail use and 6,500 square feet of ground level retail space. The project FAR would be 21.5 to 1. Renderings, elevations, floor plans, sections and model photographs of the proposed project are shown in Figures 3 - 17.

An underground connection to the mezzanine level of the Montgomery Street BART/MUNI-Metro station would be provided from the building's basement, connected to the lobby by a separate elevator. (Figure 11, page 20). Multiple building entrances would be located on both Sansome and Sutter Streets. The sidewalk area along Sutter Street would be widened through the provision of an arcade and along Sansome Street by a portion of the public entry court, providing a shortened walking distance across the site through these areas and the building lobby. (Figure 12, page 21). The proposed tower would be set back from the Standard Oil Building and the Equitable Building. (Figure 14, page 23).

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[1]"Solarcool" gray is a trade name of PPG Industries. See Appendix A, page 258 for a description of the characteristics of this glass.

[2]Constructed area, including unenclosed arcades, would total about 819,700.

An escalator would connect the ground-level retail arcade to the mezzanine level, which would be reserved for a bank or additional retail tenants. The 38th and 39th floors of the office tower would be designed and leased together as a two-story space including recessed windows and balconies.

Text continues on page 27.

figure 3 PROPOSED ONE SANSOME PROJECT

Source: William L. Pereira Associates

View from Market Street.

figure 4 PROPOSED ONE SANSOME PROJECT

Source: William L. Pereira Associates

● View of Proposed Public Entry Court

● Shadow patterns depicted are illustrative of shadings of the court at mid-day during the summer.

figure 5 **PROPOSED ONE SANSOME PROJECT**

Source: William L. Pereira Associates

View of Proposed Retail Arcade

figure 6 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

SITE PLAN

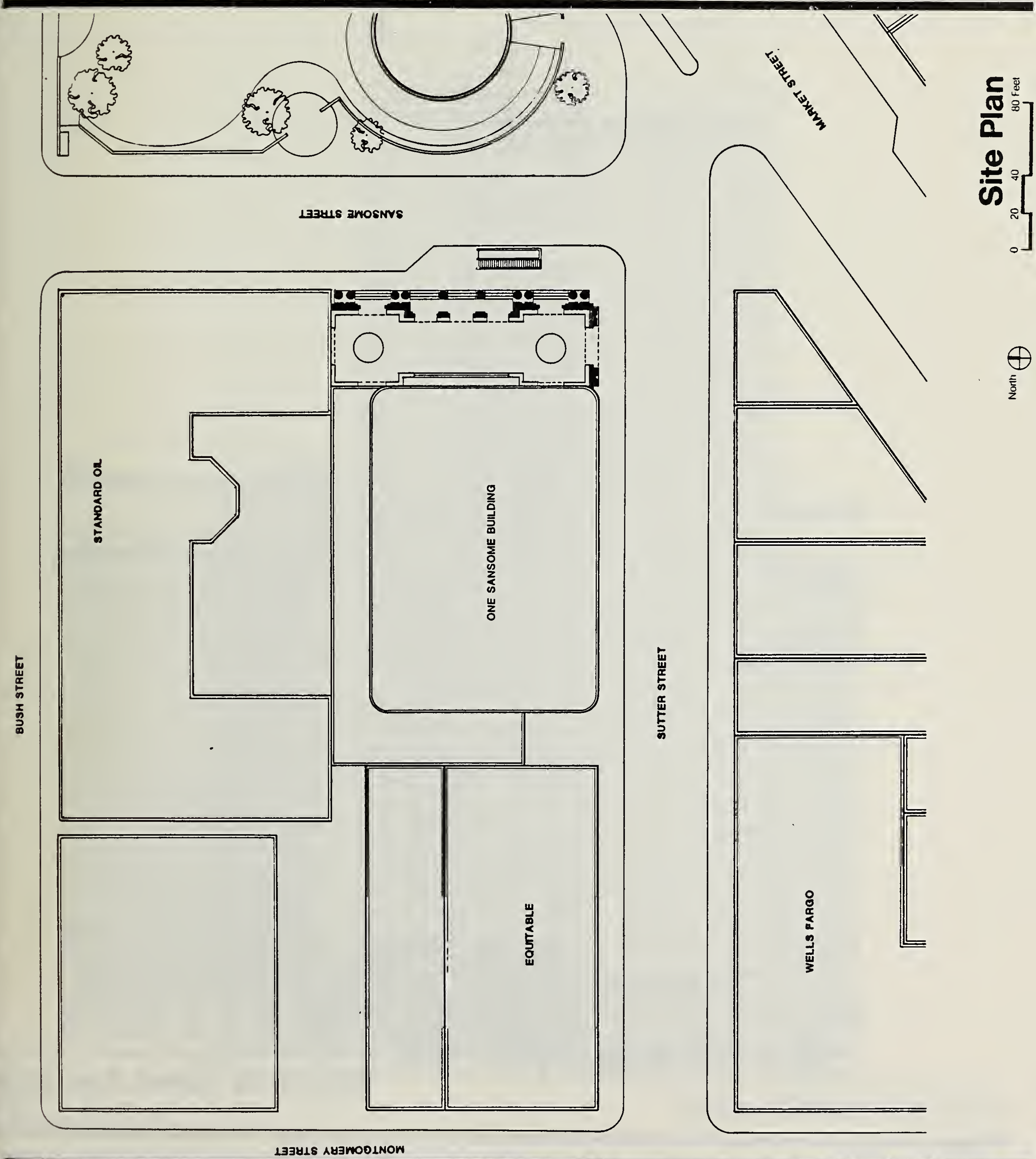


figure 9 **PROPOSED ONE SANSOME PROJECT**

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

NORTH ELEVATION

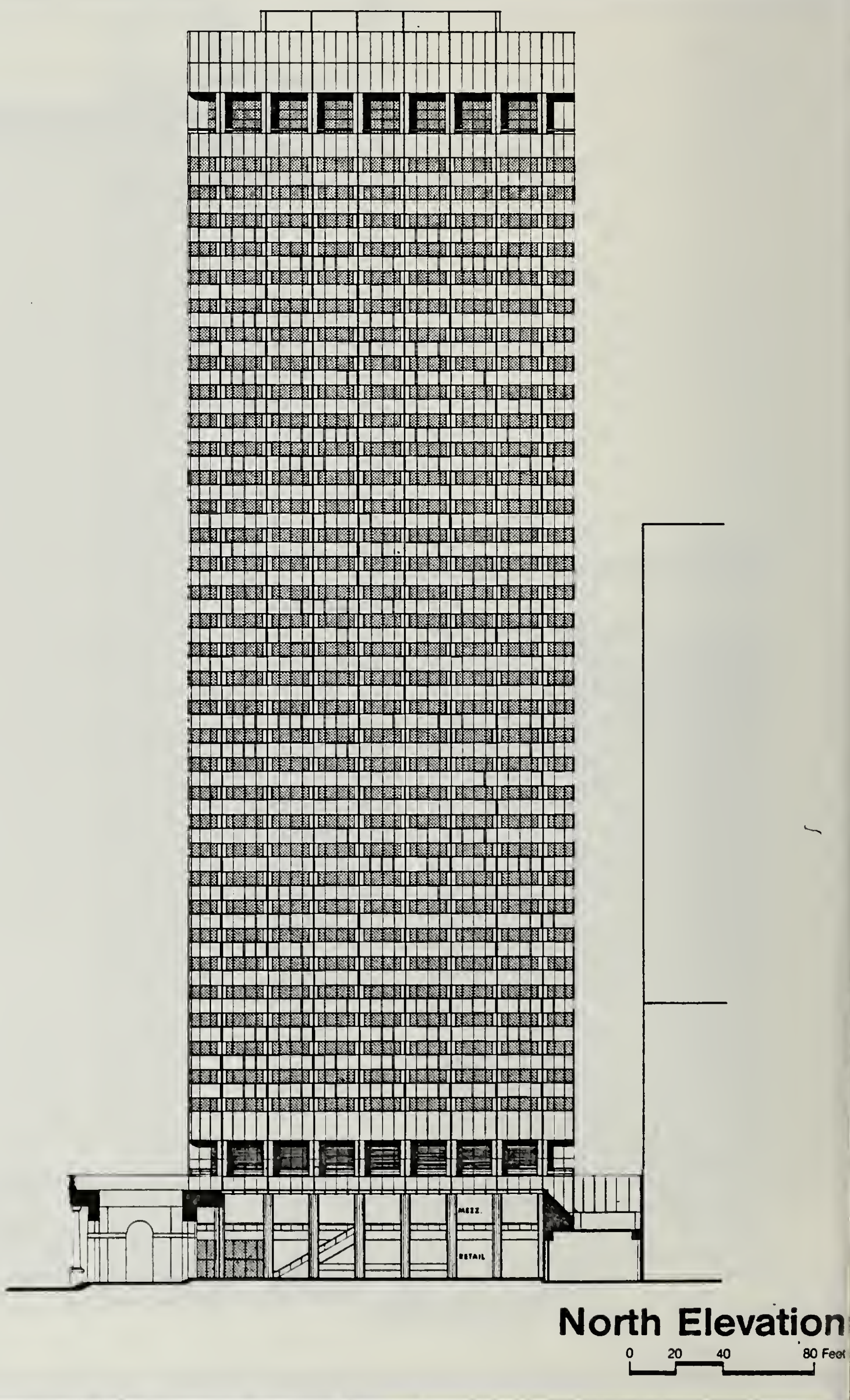
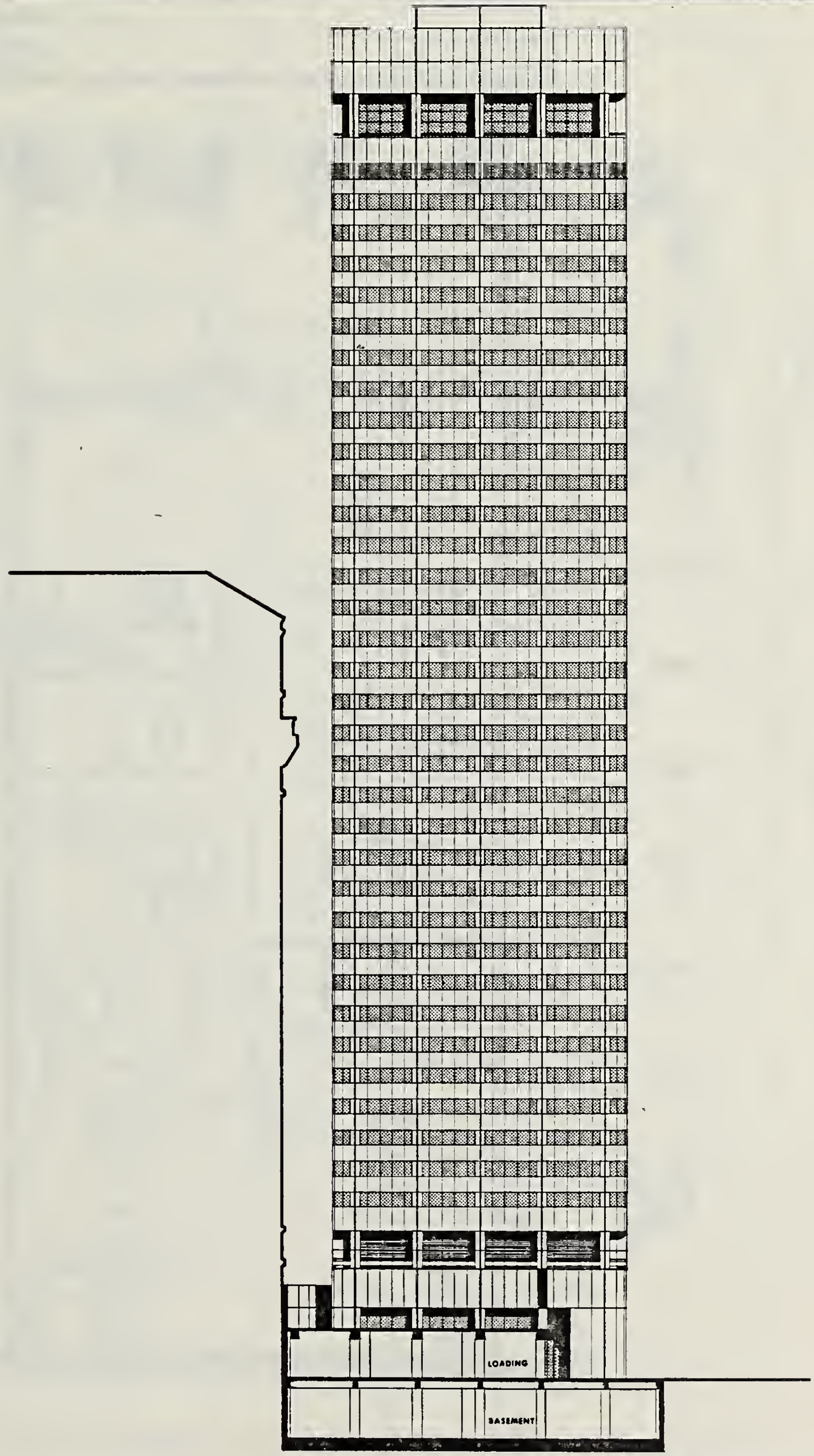


figure 10 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

WEST ELEVATION



West Elevation

0 20 40 80 Feet

figure 11 **PROPOSED ONE SANSOME PROJECT**

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

BASEMENT PLAN

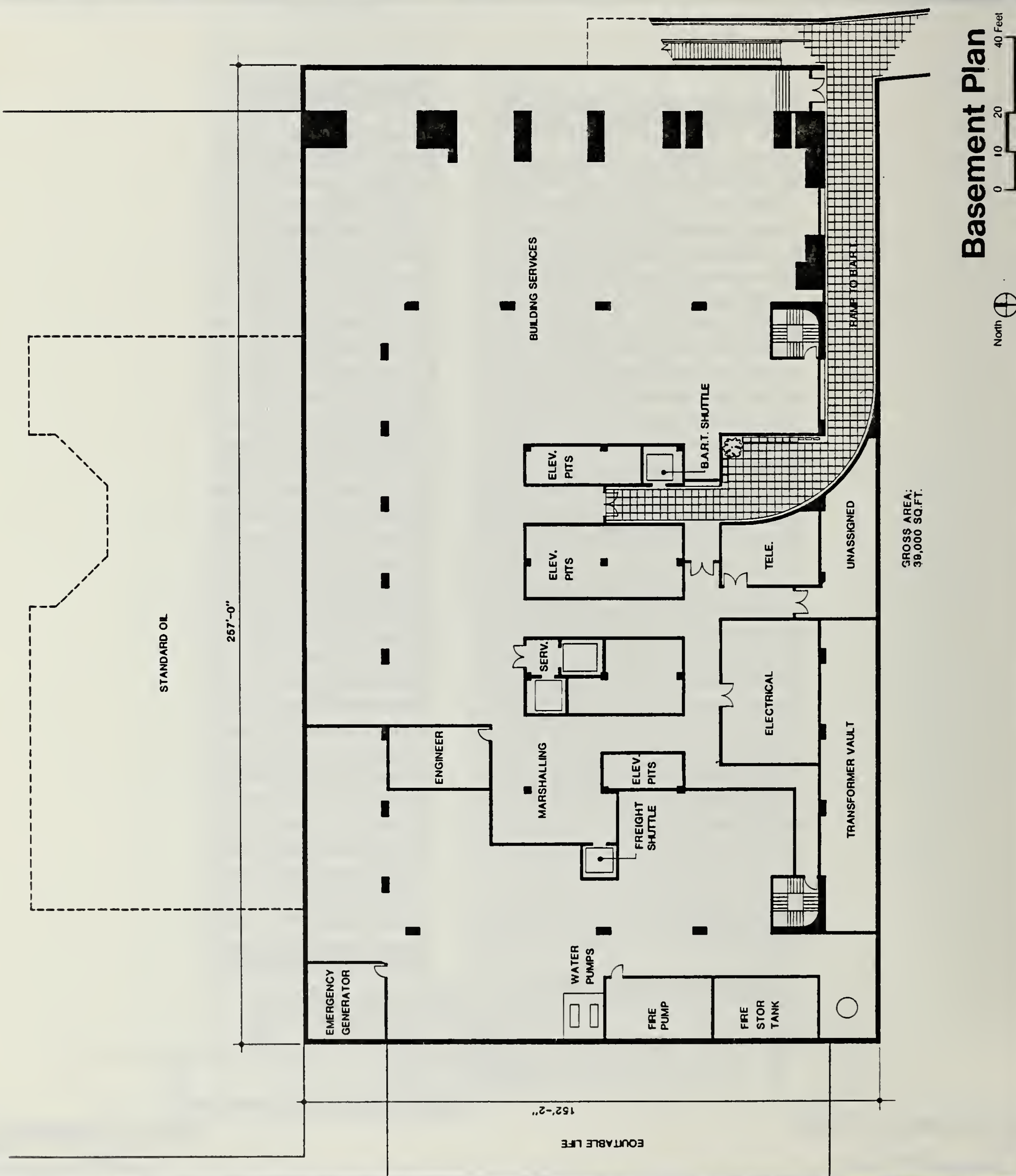


figure 12 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L. PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

GROUND FLOOR PLAN

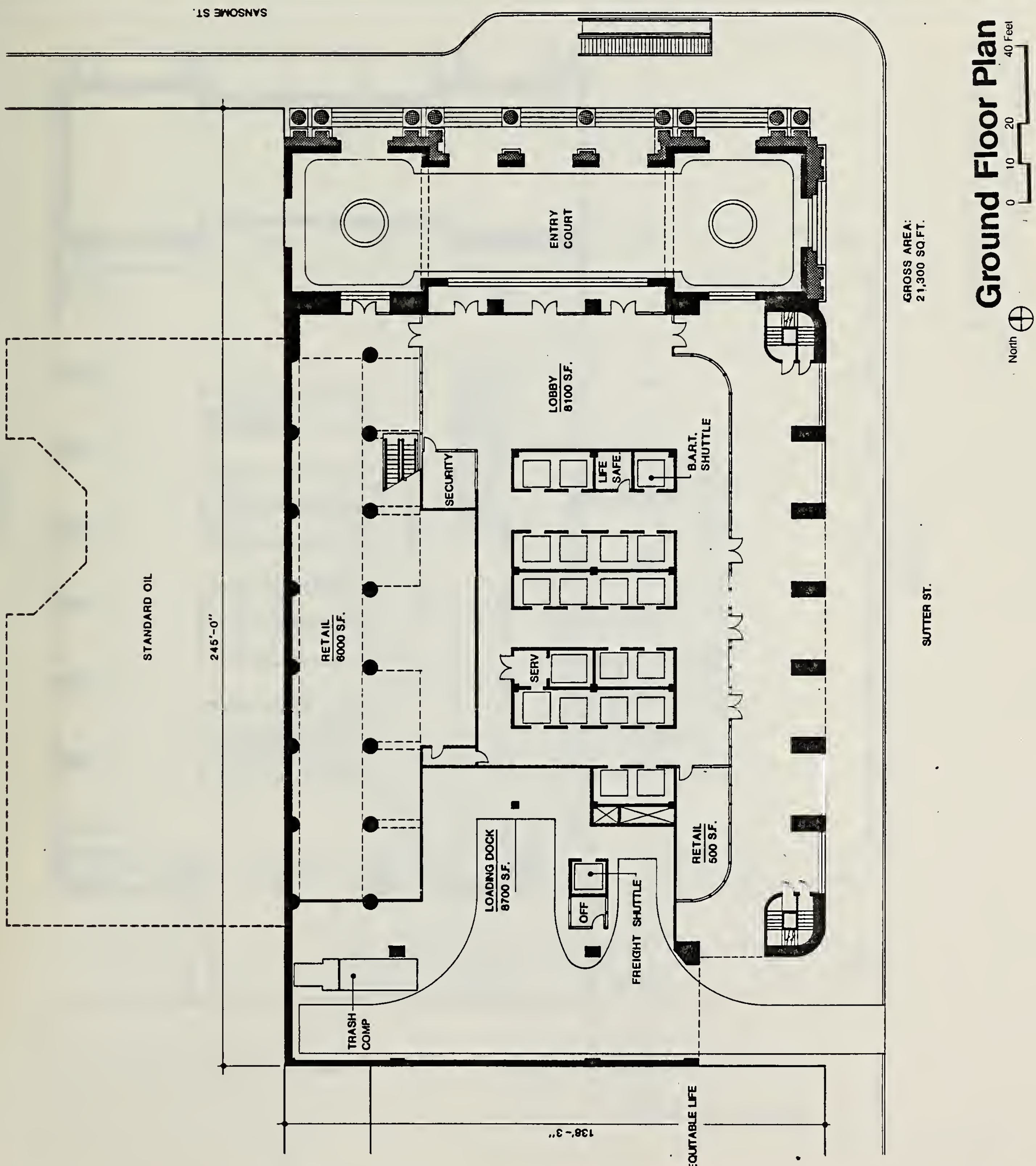


figure 13 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS·ARCHITECTS·ENGINEERS

MEZZANINE PLAN

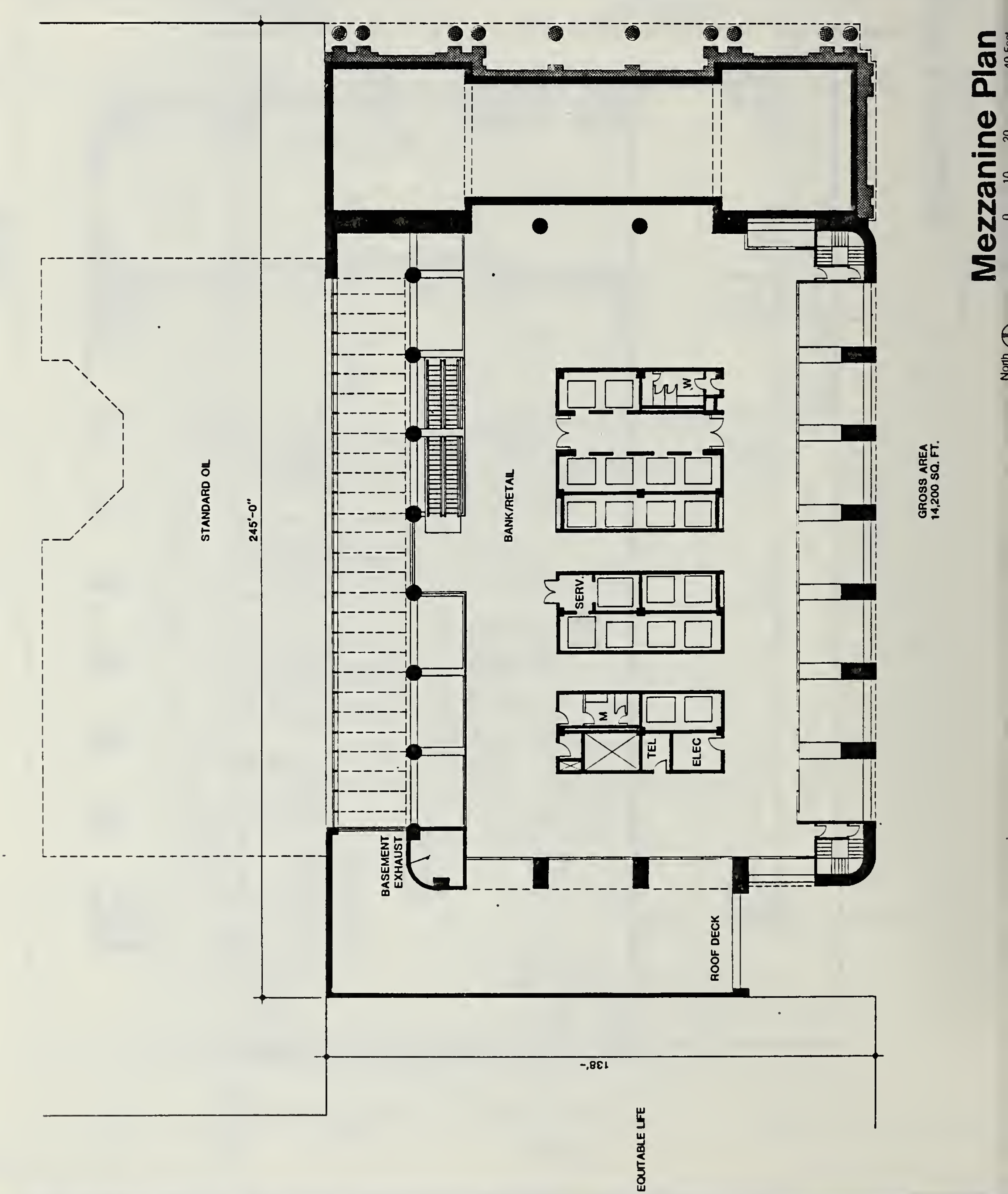
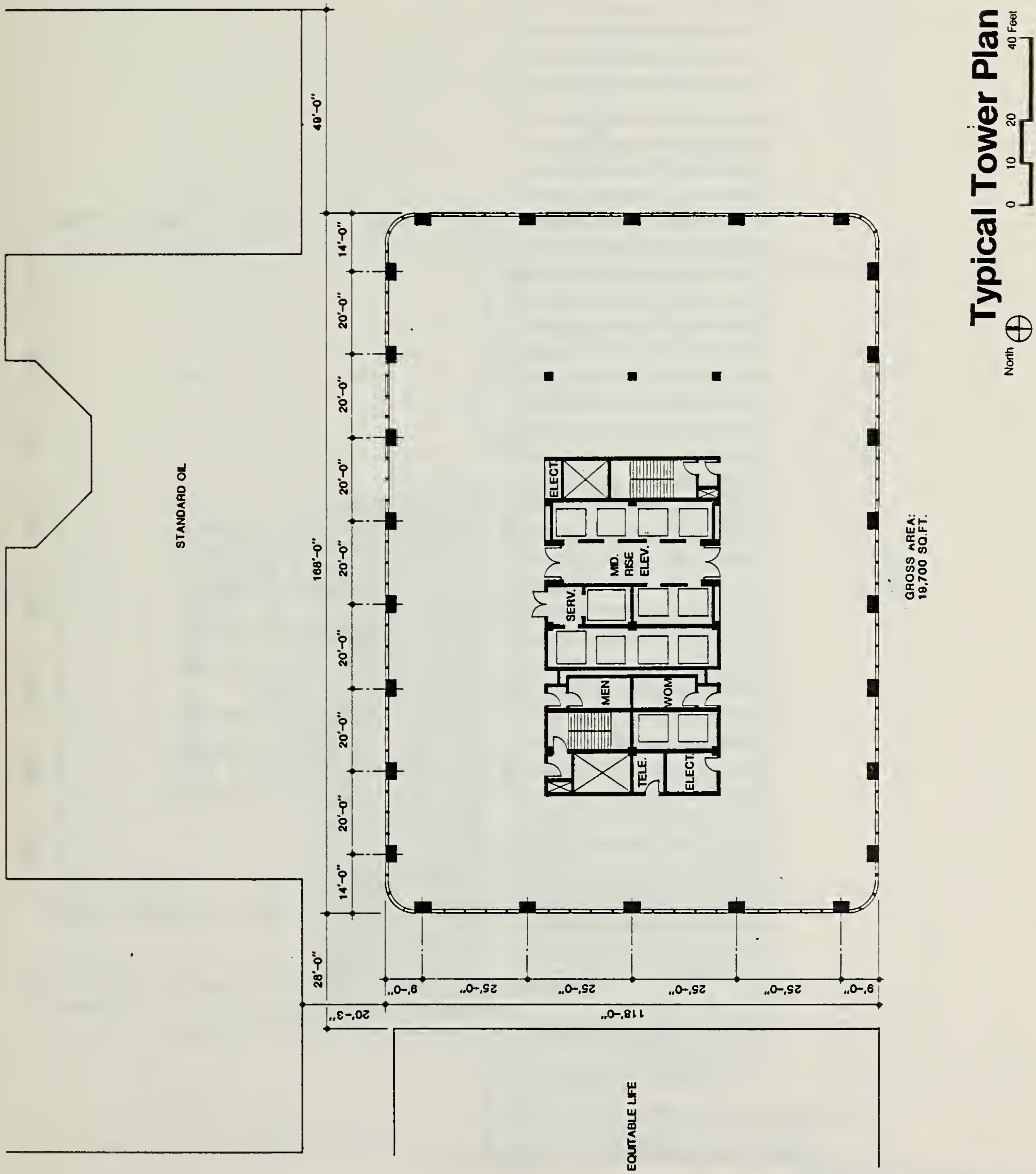


figure 14 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

TYPICAL TOWER PLAN



PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES PLANNERS · ARCHITECTS · ENGINEERS

38TH & 39TH FLOOR PLAN

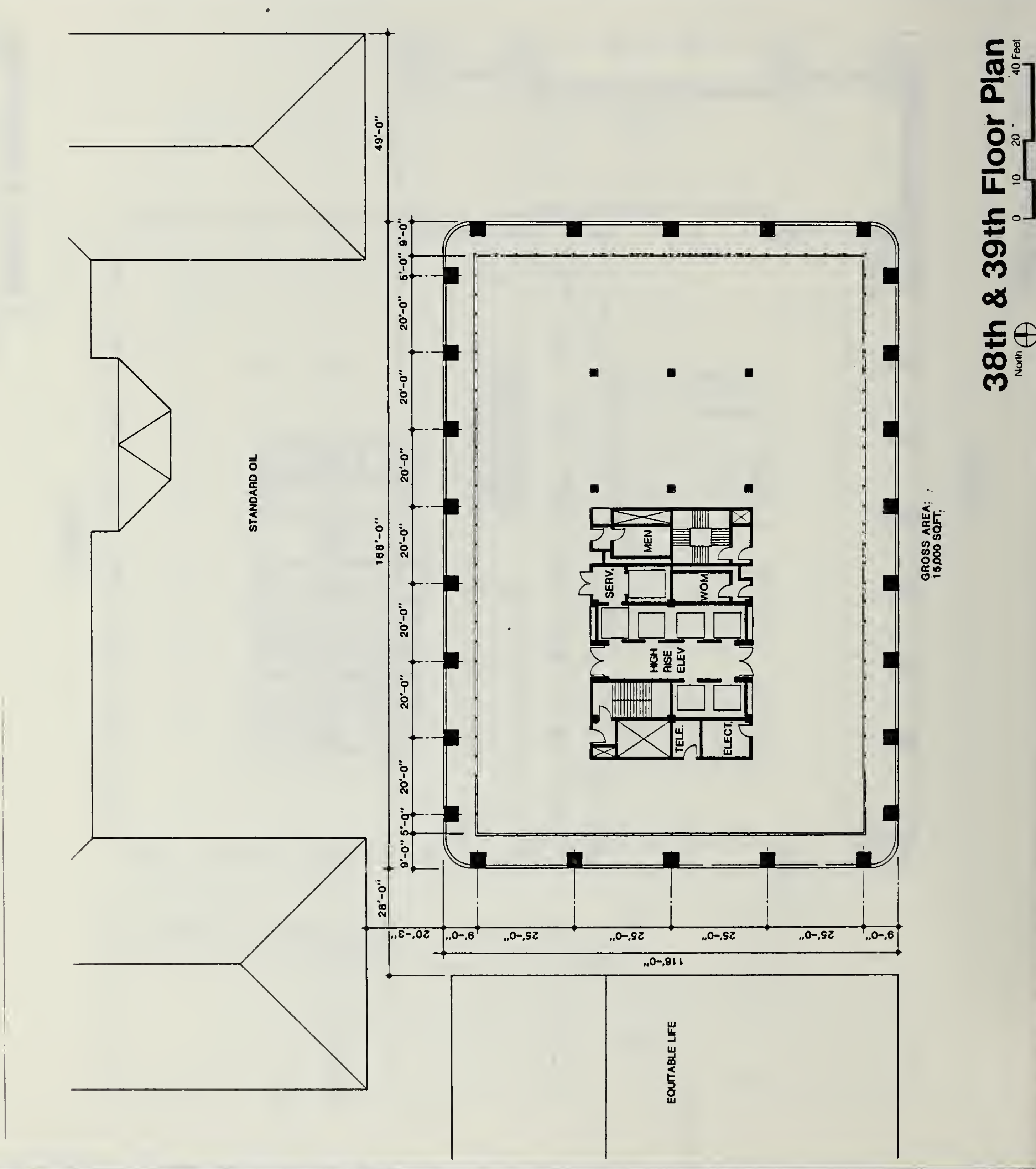
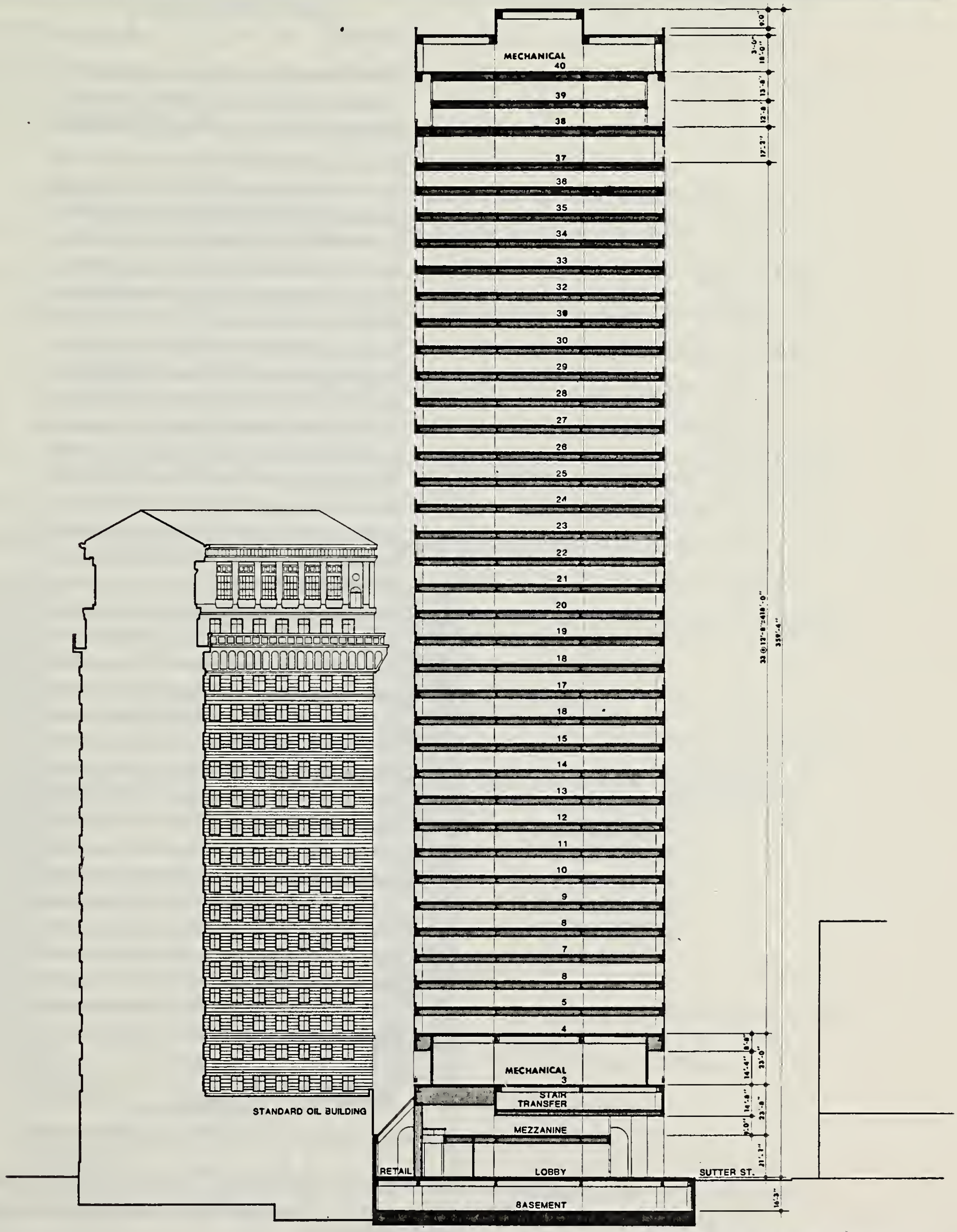


figure 16 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

CROSS SECTION



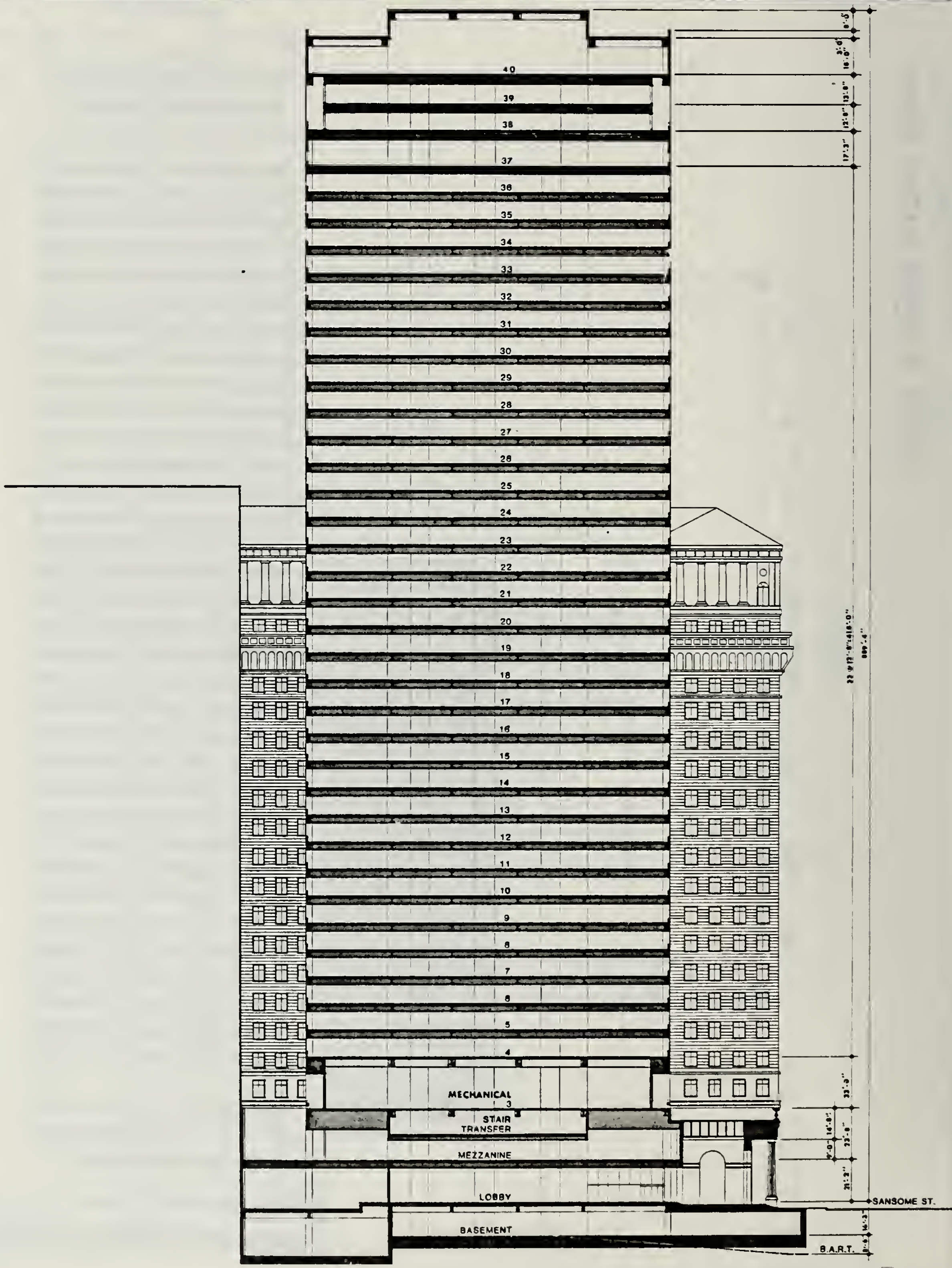
Cross Section

0 20 40 80 Feet

figure 17 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L. PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

LONGITUDINAL SECTION



Longitudinal Section

0 20 40 80 Feet

D. PROJECT OCCUPANCY, SCHEDULE, REQUIRED ACTIONS AND COSTS

Although future tenants are not yet known, total occupancy of the building is estimated at 3,120 people. Office employees are estimated to number 3,020 with 30 employed in retail and 70 in building services.[1]

Detailed design of the proposed project is scheduled by the sponsor for completion in 1981. Certification of the Environmental Impact Report and subsequent action by the City Planning Commission on Discretionary Review of the project because of its proximity to Market Street are expected to be completed by summer, 1981. Documentation of the existing buildings and the processing of permit applications for demolition, excavation and construction would begin thereafter, with demolition completed in two months. An anticipated 24-month construction period would be involved (Table 1). Initial occupancy by Citicorp is scheduled for summer, 1983. The cost of construction is estimated to be $62 million in 1980 dollars.

TABLE 1: CONSTRUCTION SCHEDULE

Building Activity	Approximate Duration
Demolition	2 months
Excavation	2 months
Foundation	2 months
Building Structure	6 months
Architectural Finish	12 months
	24 months

Source: T. Ray, Swinerton & Walberg Co., letter communication, 17 October 1980, and William L. Pereira Associates, Project Schedule, Revision #2, 21 October 1980.

[1] Office employment is calculated on the assumption of 200 net occupiable square feet per worker (603,700/200 = 3,019); retail employment at 600 net rentable square feet per worker (17,400/600 = 29); building services employees at 8 workers per 100,000 gross square feet (809,900 x .00008 = 65).

CHAPTER III. ENVIRONMENTAL SETTING

A. HISTORICAL AND CULTURAL RESOURCES

1. History and Archeology of the Site

No evidence has been uncovered from sources surveyed to link One Sansome or 58 Sutter to any archaeological or historic events.[1] The sites are 450 to 500 feet inland from the original shoreline of Yerba Buena Cove; thus, the likelihood of marine remnants is remote. The existence or survival of any subsurface remains is improbable. Between 1869 and 1906, two permanent structures constructed in a form typical of San Francisco's 19th Century commercial loft buildings, occupied the sites at One Sansome and 58 Sutter. In 1888, the One Sansome building was remodeled to accommodate the London Paris and American Bank, Ltd. Both buildings were later destroyed in the earthquake and fire of 1906. There is a possibility that the present One Sansome building incorporates a part of the earlier structure's foundation, because it is of approximately the same dimensions.

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[1] Appendix B, page 260 contains a full discussion of the sources, methodology and findings from archival research on which the discussion of the site and existing buildings in this section is based. A bibliography of specific sources is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

2. History and Architecture of Existing Buildings

Anglo and London Paris National Bank (One Sansome)

The One Sansome building was designed in 1908, by Albert Pissis, in association with W. Garden Mitchell, for the Anglo and London Paris National Bank. As originally designed, the building consisted of the entire existing Sutter Street frontage and the corner bay on the Sansome Street side which functioned as the entrance. This bank was the successor of two banks whose quarters were destroyed in 1906; one had been located at One Sansome.

The building design resulted from an architectural competition in which a number of San Francisco architects participated. The design followed the general preference in San Francisco, as in many other cities during this period, to erect a Beaux Arts style[1] classical temple as a prominent symbol of a financial institution's particular significance in the community.

In 1915, expanding bank operations led to a merging of the building with the Holbrook Building in order to provide additional office space. In 1923, the institution was becoming one of the largest banks in California and again required more space. Architect George W. Kelham, with H. J. Brunnier (structural engineer), designed an extension to the north which nearly tripled the original building size and created what was

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[1]The Beaux Arts style derives its name from the Ecole de Beaux Arts in Paris, France, where many American architects studied during the late 19th Century and which was a model of architectural training in the United States. The style is characterized by its derivation of forms and decorative features from classical Greek and Roman architecture and European Renaissance architecture derived from the same classical influences. The style was especially popular among architects in San Francisco around the turn of the century.

at one time reputed to be the largest banking hall west of Chicago. The existing One Sansome building remains essentially as Kelham enlarged it (Figures 18 and 19).

The building is a 3-story rectangular block (with basement) expressed as one monumental unit. Five bays extend along Sansome and the same number along Sutter (Figure 19). Construction is steel frame with reinforced concrete floors, walls and roof. The exterior finish is granite, while the interior is finished in artificial and genuine travertine marble. The interior includes a major bank exchange hall occupying most of the first floor, a basement vault area and a service basement, a mezzanine not visible from the bank hall and a third floor office level corresponding to the mezzanine and surrounding the upper lightwell. The ceiling is dominated by a large oval dome of yellow glass (since painted over) and an elaborate octagonal coffering joined by an ornamental pattern of studded lines and strands. The division of the mezzanine wall bays are decorated by cast medallions emulating Roman coins which are repeated in the collar of the dome. The original marble rail and bronze teller cages remain, but much of the original banking furniture has been removed, including the marble check-writing tables.[1] Both street elevations of the building are treated as monumental temple walls with Roman Doric columns, expressing the formal monumentality sought by major banks earlier in this century (Figure 20, page 33). The plain Doric columns and thick granite materials give the building a sense of mass which visually dominates and anchors the corner. The design of this mass attempts to be responsive to pedestrian scale and visual experience.

One Sansome (Anglo and London Paris National Bank) is rated "5", the highest rating on a 0 to 5 scale of worthwhile

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[1]Field survey by John M. Sanger Associates Inc, 25 June 1981.

buildings, in the San Francisco Department of City Planning's 1976 Inventory of Architecturally Significant Buildings. (See Appendix C, page 274.) This places it in the top 1/2% of the city's architecture. The downtown building inventory, sponsored by the Foundation for San Francisco's Architectural Heritage and published as Splendid Survivors, evaluated the building as one of its "A" Group of San Francisco's most significant buildings on its scale of A to D. (See Appendix D, page 275.)

figure 18

ONE SANSOME BUILDING

Source: Charles Hall Page & Associates, Inc. View from Sansome Street (east).

Note: Pissis'original entrance bay to the left,
Kelham's addition of four bays on the right.

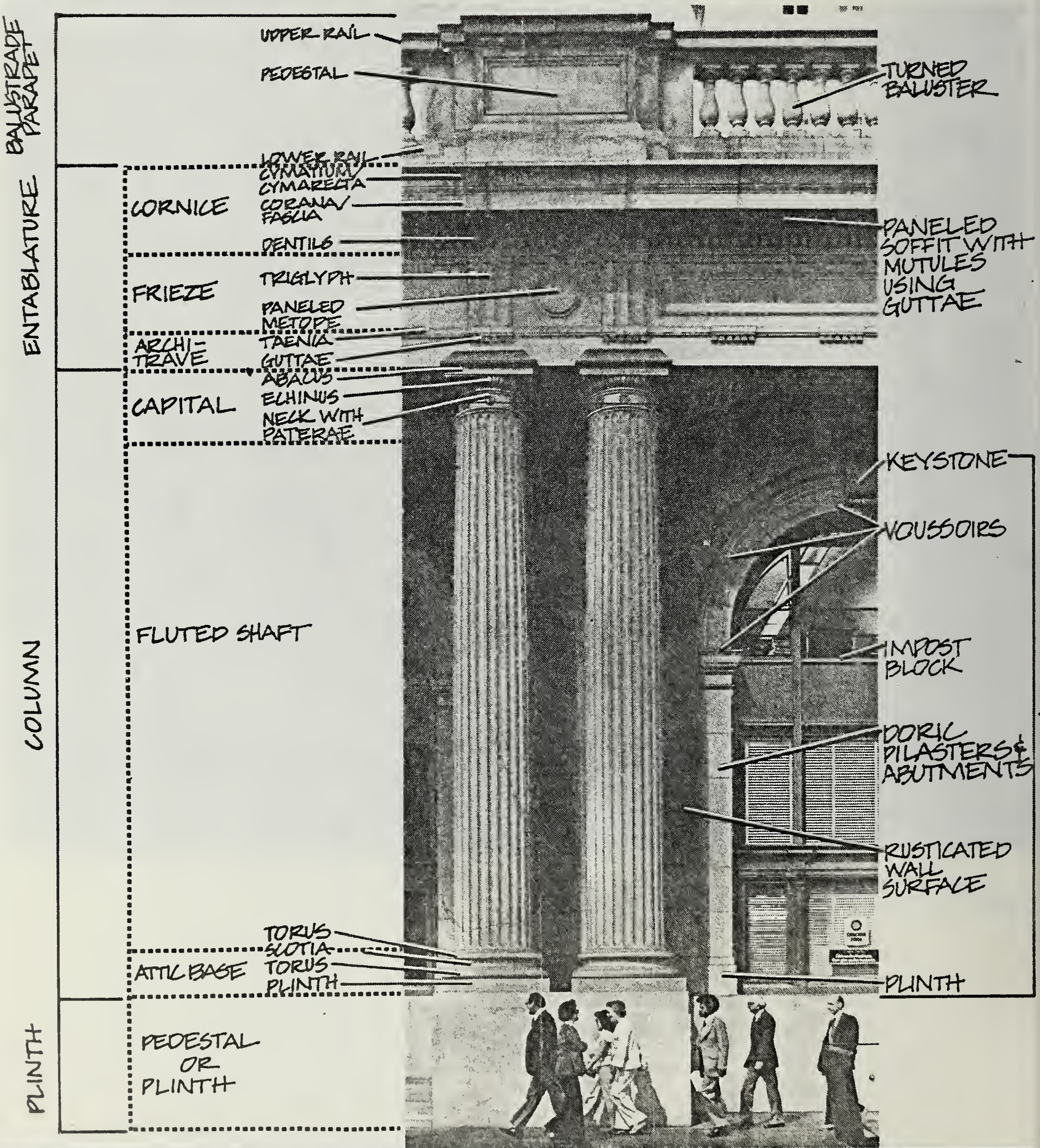
figure 19 ONE SANSOME BUILDING

Source: Charles Hall Page & Associates, Inc. View from Sutter Street(south).

figure 20

ONE SANSOME BUILDING
ARCHITECTURAL DETAILS

Source: Charles Hall Page & Associates, Inc.



The San Francisco Landmarks Preservation Advisory Board recommended City landmark status for the building **(7 For, 0 Against, 1 Absent)**[1] and the Planning Commission recommended designation **(7 For, 0 Against)** to the Board of Supervisors on 4 January 1979.[2] However, the Board of Supervisors denied landmark designation **(4 For, 5 Against, 2 Absent)** on 2 April 1979.[3]

Holbrook Building (58 Sutter)

The Holbrook Building was constructed in 1912 for Charles H. Holbrook, San Francisco business pioneer and financial investor. The architect was one of the most prominent post-fire San Francisco firms, MacDonald (Kenneth, Jr.) and Applegarth (George Adrian). The composition is a three-part vertical block, typical of the period and popular with many Beaux Arts-trained architects in San Francisco (Figure 21).

The building is 7 stories tall with a basement and central lightwell. The building skeleton is steel frame with reinforced concrete walls and floors. The street level has been remodeled into a series of recessed, glazed storefronts framed by 6 square piers at the building line. All first level

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[1]San Francisco Landmarks Preservation Advisory Board, Revised Final Case Report, Anglo and London Paris National Bank, 24 November 1978. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[2]San Francisco City Planning Commission Resolution No. 8141, 4 January 1979. This resolution is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3]San Francisco Board of Supervisors, File No. 90-79-6. This material is on file and available for public review at the Board of Supervisors Clerk's Office, City Hall, Room 235.

commercial spaces have been remodeled.

The San Francisco Department of City Planning's Inventory of Architecturally Significant Buildings rates the Holbrook Building "3" on its 0 to 5 scale for worthwhile buildings in San Francisco, placing the building in the top 2% of the city's architecture. (See Appendix C, page 274.) The survey particularly notes the quality of the cornice and top story as

figure 21 **HOLBROOK BUILDING**

Source: Charles Hall Page & Associates, Inc.

contributions to the streetscape (Figure 22). The building is further cited for its role of transition in scale between One Sansome and its modern high-rise neighbors. The Heritage downtown inventory, Splendid Survivors, rates the Holbrook Building as "B" in its A to D scale. (See Appendix D, page 275.)

The Landmarks Preservation Advisory Board recommended City landmark status for the Holbrook Building (4 For, 3 Against, 1 Absent)[1] and the Planning Commission recommended designation (4 For, 3 Against) on 4 January 1979.[2] The Board of Supervisors denied landmark designation (0 For, 9 Against, 2 Absent) on 2 April 1979.[3]

3. Seismic Evaluation of Existing Buildings

Both One Sansome and 58 Sutter were constructed according to the building codes applicable at the time and all reconstructions and remodeling have met applicable standards.

The Holbrook Building is in compliance with the parapet ordinance and has received a clearance from the Department of

[1] San Francisco Landmarks Preservation Advisory Board, Revised Final Case Report, Holbrook Building, 15 November 1978. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[2] San Francisco City Planning Commission Resolution No. 8140, 4 January 1979. This resolution is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3] San Francisco Board of Supervisors, File No. 90-79-5. Copies of this material are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

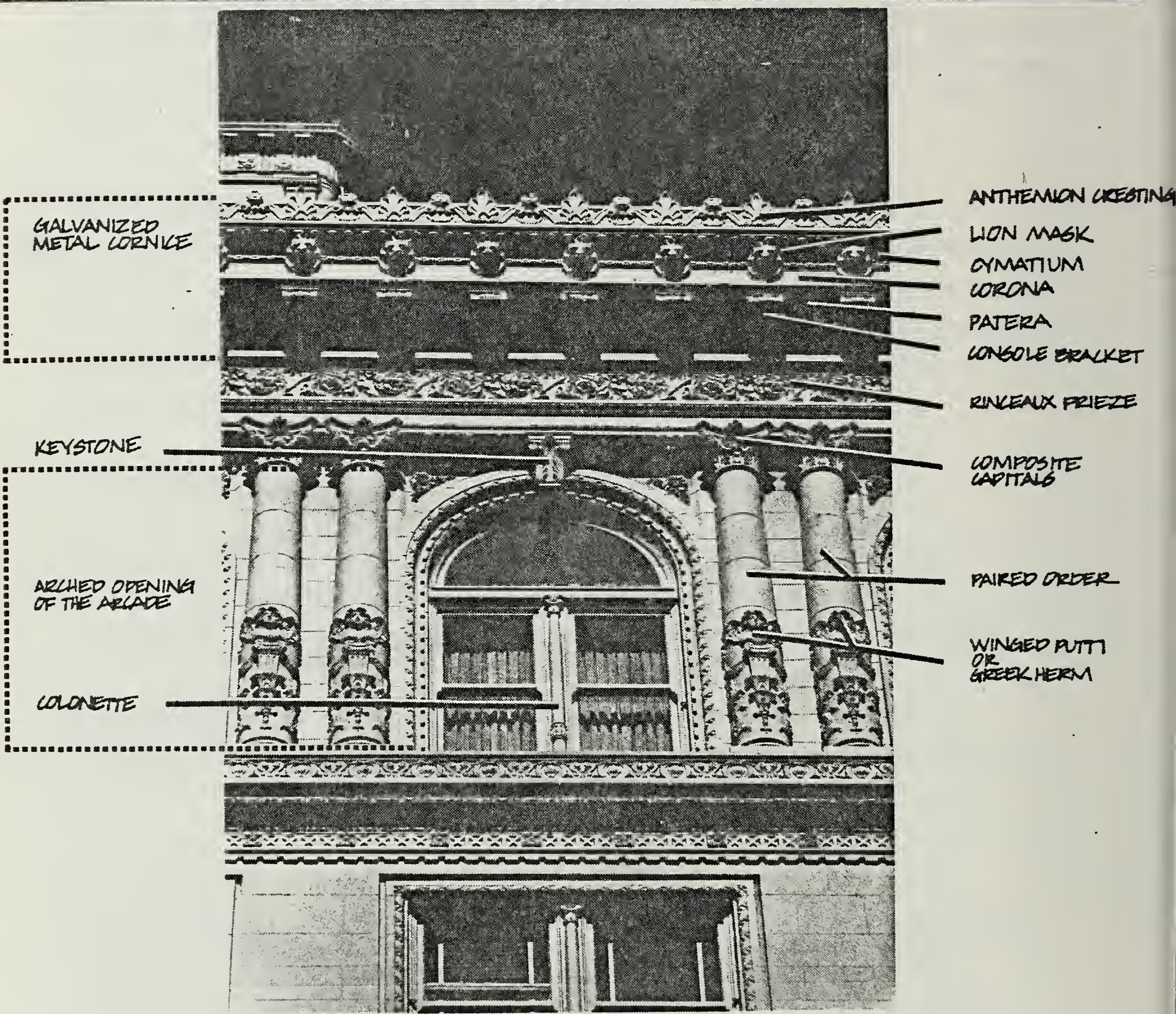
Public Works.[4] The Department of Public Works has directed the owner of One Sansome to investigate the compliance of the building with the parapet ordinance. As yet, the owners have taken no action due to their intent to develop the site.

[4]R. H. Register, Building Plans Engineer, San Francisco Department of Public Works, Parapet Safety Section, telephone communication, 2 July 1979, and J. Boatright, One Sansome Associates, memorandum, 5 July 1979. A copy of this memorandum is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

figure 22

HOLBROOK BUILDING
ARCHITECTURAL DETAILS

Source: Charles Hall Page & Associates, Inc.



B. URBAN DESIGN

One Sansome stands at a downtown intersection where Market Street joins Sansome and Sutter, with the Holbrook Building directly west on Sutter. The downtown street grid changes at Market Street with streets south of Market being parallel to Market and streets north of Market running diagonally into Market, creating a series of three-street intersections, of which Sansome and Sutter is one. Traditionally, visually prominent buildings have been located at these intersections. Neither the One Sansome nor the Holbrook Building are generally visible at street level beyond the street segments immediately adjoining the site due to their heights and intervening structures. The One Sansome building is visible from Market Street at Sansome. The upper portions of the Holbrook Building are visible from points on Market Street between Sansome and Battery.

Historically, the southern edge of Market Street has been a straight, vertical wall of buildings on long blocks. The more frequent diagonal intersections on the north prevent the street from becoming a narrow canyon with high walls. At present, the Sansome, Sutter and Market Street intersection is joined visually to that of Battery and Market, via the Crown Zellerbach Plaza. One Sansome, together with the Standard Oil Building, forms a defining building edge on the west side of the Crown Zellerbach Plaza. The height of One Sansome expands the sense of openness created by the Plaza and permits views of the Standard Oil Building court.

Modern skyscrapers partially surround the Sansome/Market Street intersection. These include Crown Zellerbach, the Tishman Building at 525 Market, 595 Market and two Standard Oil towers at 575 Market and 555 Market. When viewed together, these buildings and other downtown high-rises sharing a similar height and form, contribute to a uniform skyline profile. The opposite corner on Market Street is occupied by the Flat Iron

Building (544 Market), part of a rare intact group of Market Street buildings of mixed character built before the 1906 earthquake.

With the Standard Oil Building at 225 Bush Street, One Sansome and 58 Sutter form an architectural cluster. The group begins a district of older office buildings which continues along the north side of Bush and includes the Postal Telegraph, Shell, Adam Grant, Heineman, Mills and Russ buildings. This grouping is noted in Splendid Survivors as a key element of a larger group of older buildings in the financial district.

Designed by the same architect (Kelham) as the extension of One Sansome, the Standard Oil building continues One Sansome's arcade along the street, providing visual continuity at the pedestrian level. The Standard Oil Building is rated "3" on a 0 to 5 (5 = best) scale in the San Francisco Department of City Planning's 1976 Inventory of Architecturally Significant Buildings and "B" in the downtown building inventory by the Foundation for San Francisco's Architectural Heritage on its A to D scale (A = best). The south-facing inner court of the building displays an elaborate elevation, with an ornate stair tower and highly articulated upper levels, which is visible over the roof of the existing One Sansome Building from Market Street.

C. LAND USE AND ZONING

1. Land Use

One Sansome is presently occupied by the Anglo California branch office of Crocker National Bank. The Holbrook Building is approximately 85% occupied. The upper floors are occupied by a variety of tenants who have rented space on a short-term basis. The ground floor is occupied by California First Bank and a retail clothing store.[1]

The proposed project site is surrounded by high-rise and mid-rise office buildings with a number of retail stores, branch banks, and eating and drinking establishments on the ground

[1] A detailed list of current occupancies is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

floors (Figure 23). The 25-story Equitable Building is located to the west of the site at 120 Montgomery. Adjacent to it at 130 Montgomery is an office of United Federal Savings and Loan Association. The 25-story 180 Montgomery Street office building is to the northwest and the 22-story Standard Oil Building is located directly north of the site at 225 Bush. South of Sutter Street, the 42-story Wells Fargo Building is at 44 Montgomery, with smaller buildings to the east. The 19-story Crown Zellerbach Building is located directly east of the project site, with its plaza on Sansome and Market Streets. Other buildings on blocks surrounding the site consist primarily of high-rise office buildings with some ground floor retail uses.

2. Zoning

The project site is located in the C-3-0 Downtown Office District (Figure 24, p. 42). Office and retail uses are allowed in this district with a basic permitted floor area ratio[1] of 14 to 1. Development bonuses[2] allowable for amenities, including a plaza, shortened walking distance, setbacks, widened sidewalks, rapid transit access and multiple building entrances, claimed by the sponsors would permit a maximum FAR of 21.5 to 1. (See page 11 for a description of

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[1]Floor area ratio (FAR) is the maximum allowable ratio of the gross floor area of a building to the site area. For example, an FAR of 14:1 means the maximum permitted gross floor area for the building is 14 times the area of the site.

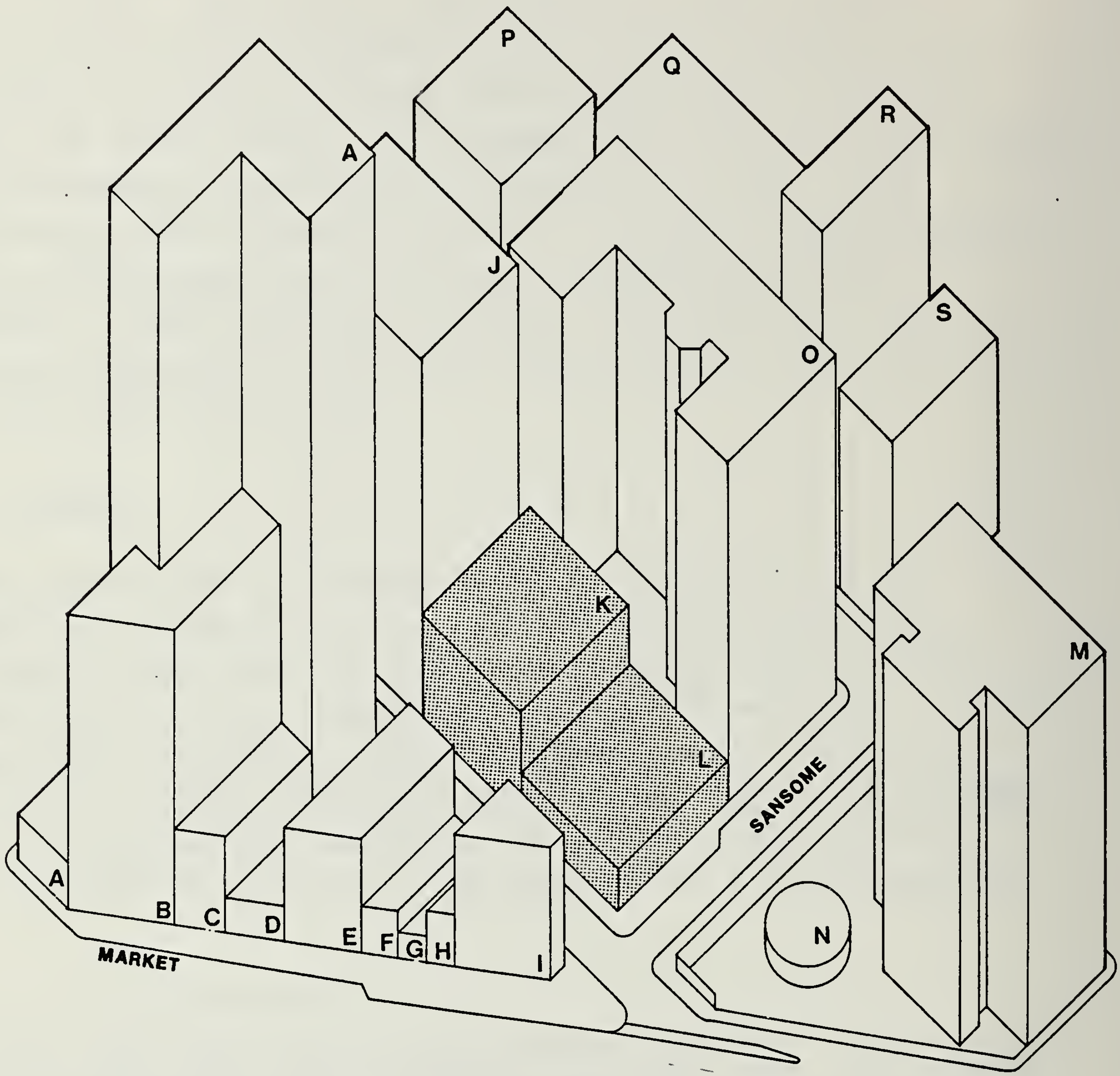
[2]Until recently, Section 126 of the City Planning Code provided for floor area bonuses for buildings with certain desirable features such as rapid transit access, rapid transit proximity, parking access, multiple building entrances, sidewalk widening, shortened walking distance, plaza, side setbacks, low coverage at upper floors or an observation deck. The bonus floor area would be in addition to that allowed by the basic FAR.

the location of these features and Appendix E, Table E-1, Figures E-1, E-2 and E-3 for bonus floor area calculations.)

figure 23

SITE AND VICINITY MAP WITH EXISTING BUILDINGS

Source: John M. Sanger Associates Inc



Building (Number of stories)

A 44 Montgomery (42)
B Hobart Building (7)
C 580 Market (2)
D 570 Market (2)
E Chancery Building (8)
F 560 Market (4)
G 554 Market (2)
H 550 Market (3)
I Flat Iron Building (11)
J Equitable Building (25)
K Holbrook Building (7)
L One Sansome-Crocker Bank Branch (2)
M Crown Zellerbach Building (19)
N Wells Fargo Bank & (1)
Crown Zellerbach Plaza
O Standard Oil Building (22)
P 180 Montgomery (25)
Q Mills Building (10)
R Mills Tower (21)
S 115 Sansome (12)

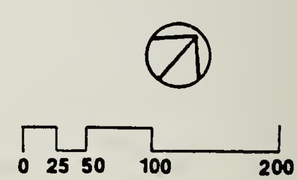
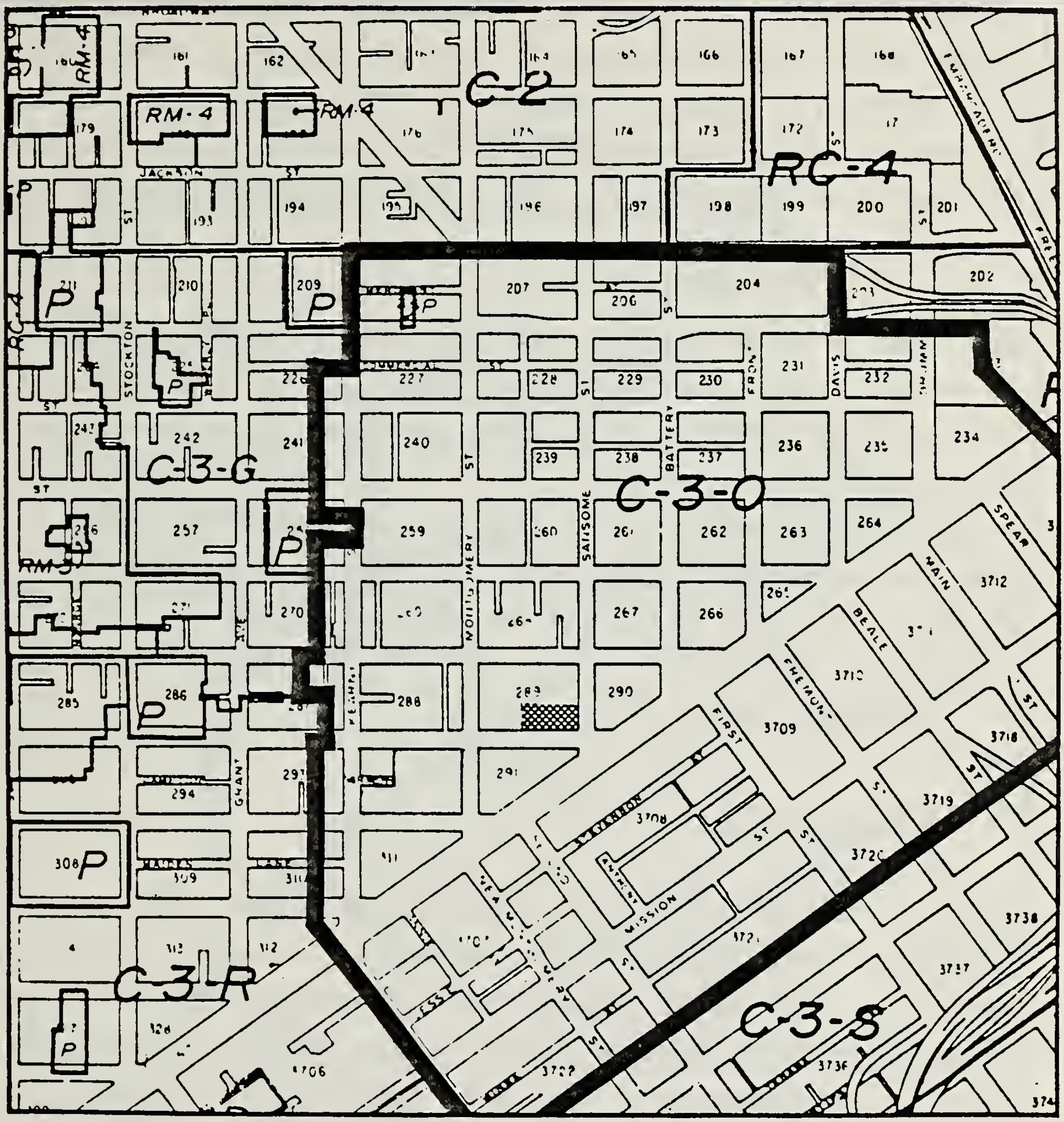


figure 24

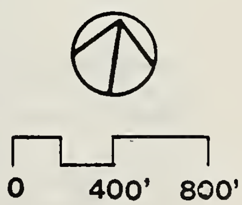
EXISTING PLANNING CODE
USE DISTRICTS

Source: San Francisco Planning Code



LEGEND

C-2	COMMUNITY BUSINESS DISTRICT
C-3-O	DOWNTOWN OFFICE DISTRICT
C-3-R	DOWNTOWN RETAIL DISTRICT
C-3-S	DOWNTOWN SUPPORT DISTRICT
C-3-G	DOWNTOWN GENERAL COMMERCIAL DISTRICT
RC-4	RESIDENTIAL-COMMERCIAL COMBINED DISTRICT, ONE DWELLING UNIT PER 200 SQUARE FEET OF LOT AREA
RM-3	MIXED HOUSE & APARTMENT CHARACTER DISTRICT, ONE DWELLING UNIT PER 400 SQUARE FEET OF LOT AREA
RM-4	MIXED HOUSE & APARTMENT CHARACTER DISTRICT, ONE DWELLING UNIT PER 200 SQUARE FEET OF LOT AREA
P	PUBLIC USE DISTRICT
	PROJECT SITE



The City Planning Code was amended, effective 1 July 1980, by the institution of interim controls for a period of one year, which disallow the use of such floor area bonuses pending a study of revised, permanent downtown zoning controls, except for certain projects already in process.[1] The proposed project is one of those exempted from the interim controls due to the filing of a preliminary draft environmental impact report prior to 3 January 1980.

The site also is located in the 700-I height and bulk district in which a maximum height of 700 feet is permitted, the highest in the City (Figure 25). The maximum permitted bulk of each structure above 150 feet is a length of 170 feet with a diagonal dimension of 200 feet. Deed restrictions in favor of the Standard Oil Building north of the site require a setback of 20 feet above a height of about 50 feet.[2]

D. TRANSPORTATION

1. Public Transit

The project is served by 5 local bus lines (#1, 2, 3, 4, and 45) which stop adjacent to the site, electric trolley, streetcar and motor coach lines on Market Street, and the BART/MUNI-METRO subway under Market Street (Figure 26). The site is approximately 2 blocks from Mission Street bus lines, which serve much of the southern part of the city. (See Appendix F, Table F-21, page 314 for load factors and capacity levels for MUNI lines operating downtown.)

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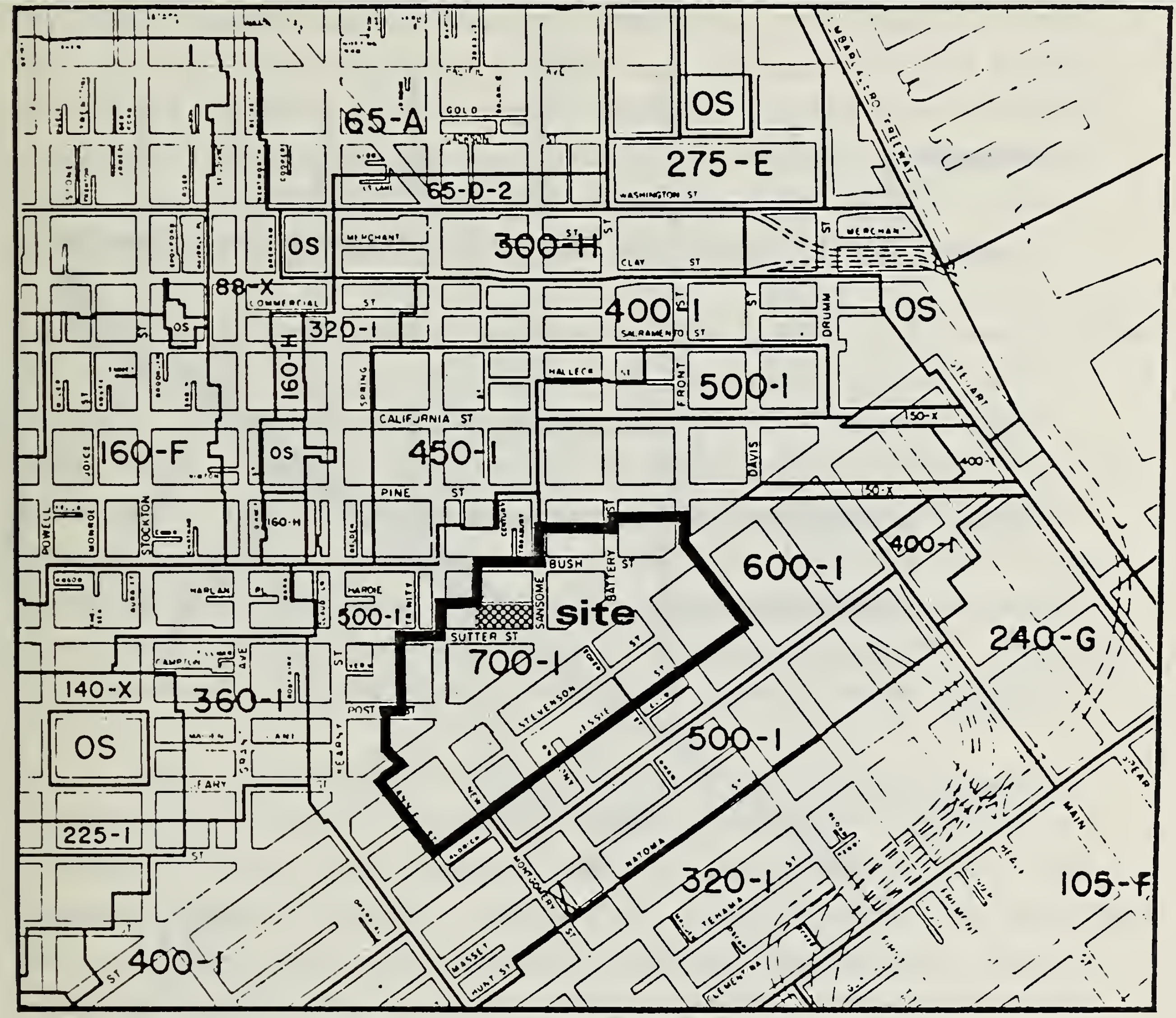
[1] San Francisco Ordinance No. 240-80, 1 July 1980.

[2] The deed restriction prevents construction within 20 feet of the property line above the roof of the interior court of the Standard Oil Building.

figure 25

EXISTING PLANNING CODE
HEIGHT & BULK DISTRICTS

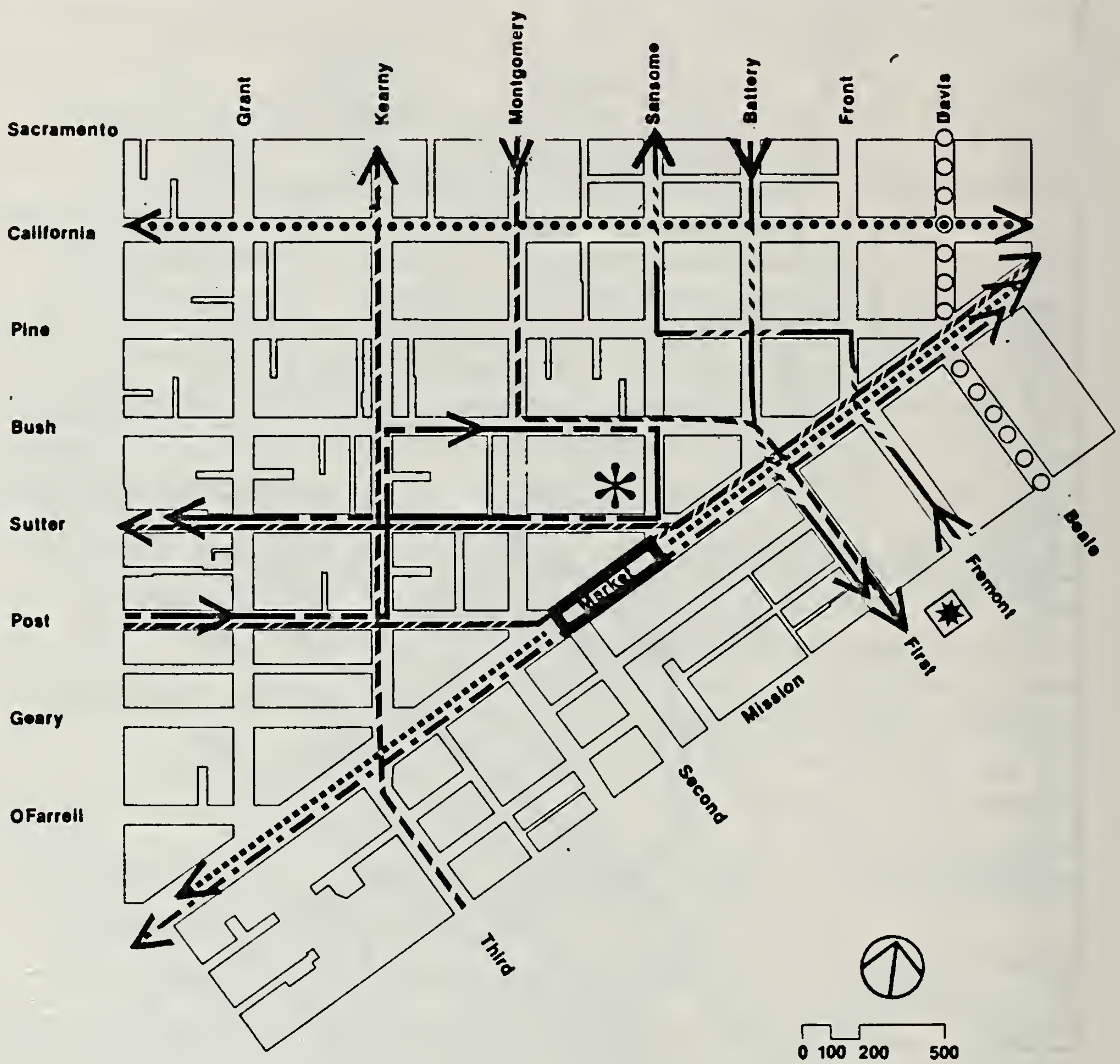
Source: San Francisco Planning Code



HEIGHT AND BULK DISTRICTS	HEIGHT LIMIT	HEIGHT ABOVE WHICH MAXIMUM DIMENSIONS APPLY	MAXIMUM BUILDING LENGTH	MAXIMUM DIAGONAL DIMENSION
700-I	700	150'	170'	200'
600-I	600	150'	170'	200'
500-I	500	150'	170'	200'
450-I	450	150'	170'	200'
400-I	400	150'	170'	200'
360-I	360	150'	170'	200'
340-I	340	150'	170'	200'
320-I	320	150'	170'	200'
300-H	300	100'	170'	200'
275-E	275	65'	110'	140'
240-G	240	H0'	170'	200'
225-I	225	150'	170'	200'
160-H	160	100'	170'	200'
160-F	160	80'	110'	140'
150-X	150	BULK LIMITS NOT APPLICABLE		
105-F	105	80'	110'	140'
OS	Conformity with objectives, principles, & policies of the Master Plan			
84-E	84	65'	110'	140'
88-X	88	BULK LIMITS NOT APPLICABLE		
65-A	65	40'	110'	125'
65-D-2*	65	40'	110'	140'

*Height exceptions may be approved up to 200 feet.

Source: John M. Sanger Associates Inc, field survey



oooooo	Muni 41
•••••••	Cable Car
▬ ▬ ▬	Muni 1,3,4,45
	Muni 2
	BART/Muni-Metro Subway & Station
	Muni 5,6,7,8,21,31,J
	Muni 15
	Muni 42
*	Project Site
✸	Transbay Terminal- AC Transit

Regional service to and from the East Bay (Alameda and Contra Costa Counties) is provided by the Bay Area Rapid Transit District (BART) and AC Transit. The site is adjacent to the Montgomery Street station of BART and approximately 3 blocks west from AC Transit's Transbay Terminal at First and Mission Streets. The Greyhound bus depot on Seventh Street between Market and Mission is 5 blocks south from the project site, providing limited service to the East Bay.

BART, SamTrans and the Southern Pacific Railway systems provide service south to the Peninsula (San Mateo and Santa Clara Counties). BART service terminates at Daly City. In San Francisco, SamTrans operates from the Transbay Terminal along Mission Street, with service throughout San Mateo and Santa Clara Counties. The Southern Pacific Railroad provides rail service from its depot at Fourth and Townsend Streets. The MUNI #40-Commuter provides rush-hour service between the depot and Stevenson and Second Street, 1-1/2 blocks from the site.

The Golden Gate Bridge Highway and Transportation District (Golden Gate Transit) provides direct peak hour commuter bus service to Marin and Sonoma Counties from stops on Pine and Sansome Streets, within 2 blocks of the site. Service at other hours is available along Mission and Howard Streets. Ferry service to and from Sausalito and Larkspur is available from the Ferry Building at the foot of Market Street, 6 blocks from the site. A private ferry to Tiburon also operates near the Ferry Building.

2. Vehicular Access

Characteristics of the street network adjacent to the proposed project site are shown in Figure 27. Freeway ramps on Clay and Washington Streets near Davis, about 1/2 mile northeast, on Main and Beale Streets at Mission, about 1/2 mile to the southeast, and on Harrison and Bryant at 4th Street, about 1/2

figure 27 STREET SYSTEM

Source: John M. Sanger Associates Inc, field survey

LEGEND

Project Site

Traffic Direction

mile south of the site provide access to the Embarcadero Freeway (California 480), the San Francisco-Oakland Bay Bridge (Interstate 80) and the James Lick-Bayshore Freeway (U.S. 101).

The site is within the Downtown Core automobile control area designated in the Downtown Transportation Plan (a part of the Transportation Element of the Comprehensive Plan).[1] In the vicinity of the project site, Market, Sutter, Montgomery, Bush (from Sansome to Market) and Sansome (from Bush to the north) are designated as transit arterial streets[2] in the Downtown Transportation Plan. Portions of Sansome and Market Street adjacent to and near the project site are also designated as locations for special shuttle transit systems for intra-downtown movements. Figures 28 and 29 show those streets designated by the Transportation Element of the San Francisco Comprehensive Plan as transit preferential streets[3] and major thoroughfares.[4] As indicated in Figure 30, page 51, Sansome and Market Streets are designated as streets to be improved as bicycle routes.

3. Parking

There are approximately 8,000 off-street parking spaces available within an area 3 blocks from the project site north

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[1]San Francisco Planning Commission, Resolution 6834, 27 April 1972, The Comprehensive Plan Transportation Element, page 25.

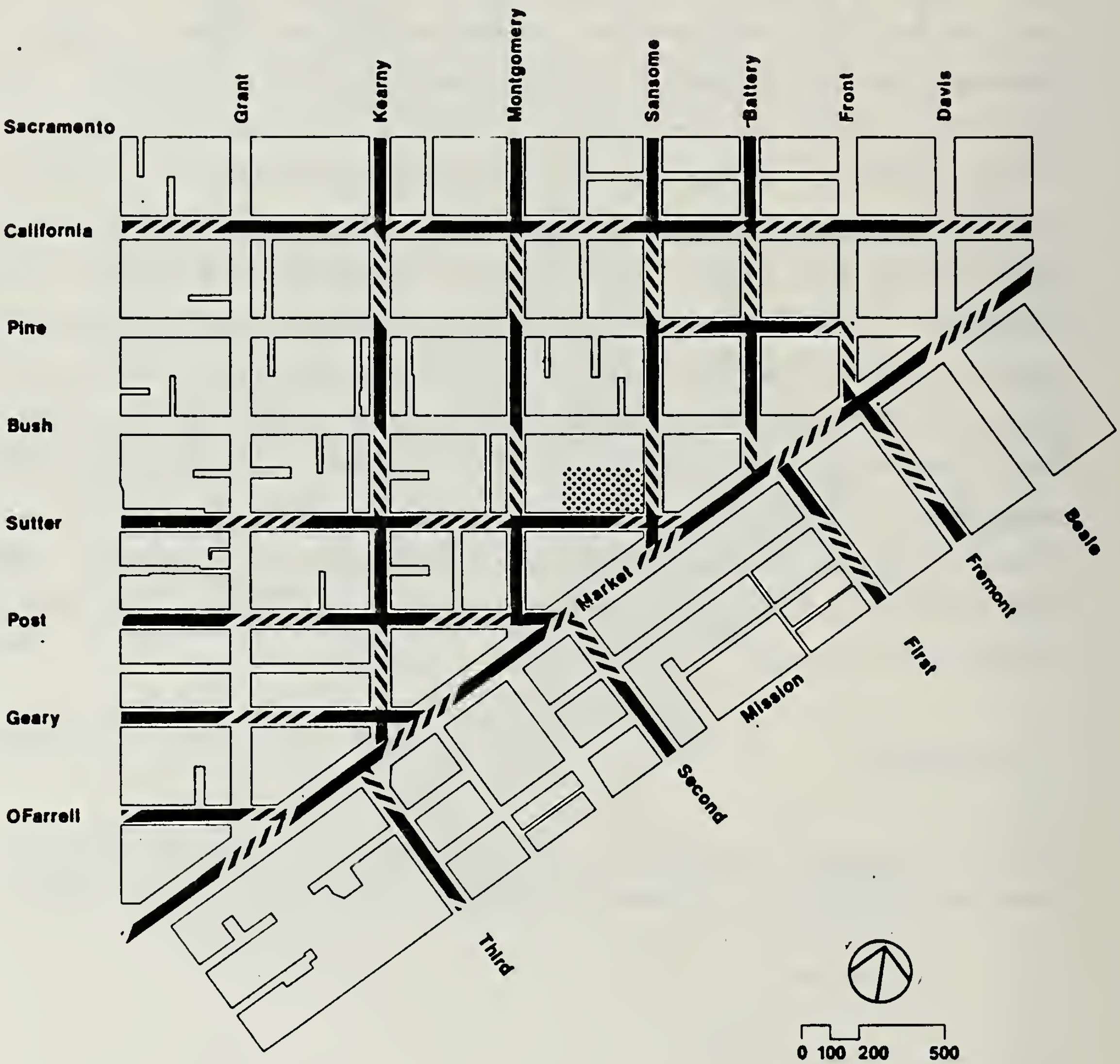
[2]A transit arterial is defined as a route of major transit lines.

[3]Streets where priority is given to transit vehicles over autos.

[4]A cross-town street whose primary function is to link districts within the City and to distribute traffic from and to the freeways; a route generally of citywide significance.

figure 28 TRANSIT PREFERENTIAL STREETS

Source: San Francisco City Planning Commission
The Comprehensive Plan Transportation Element

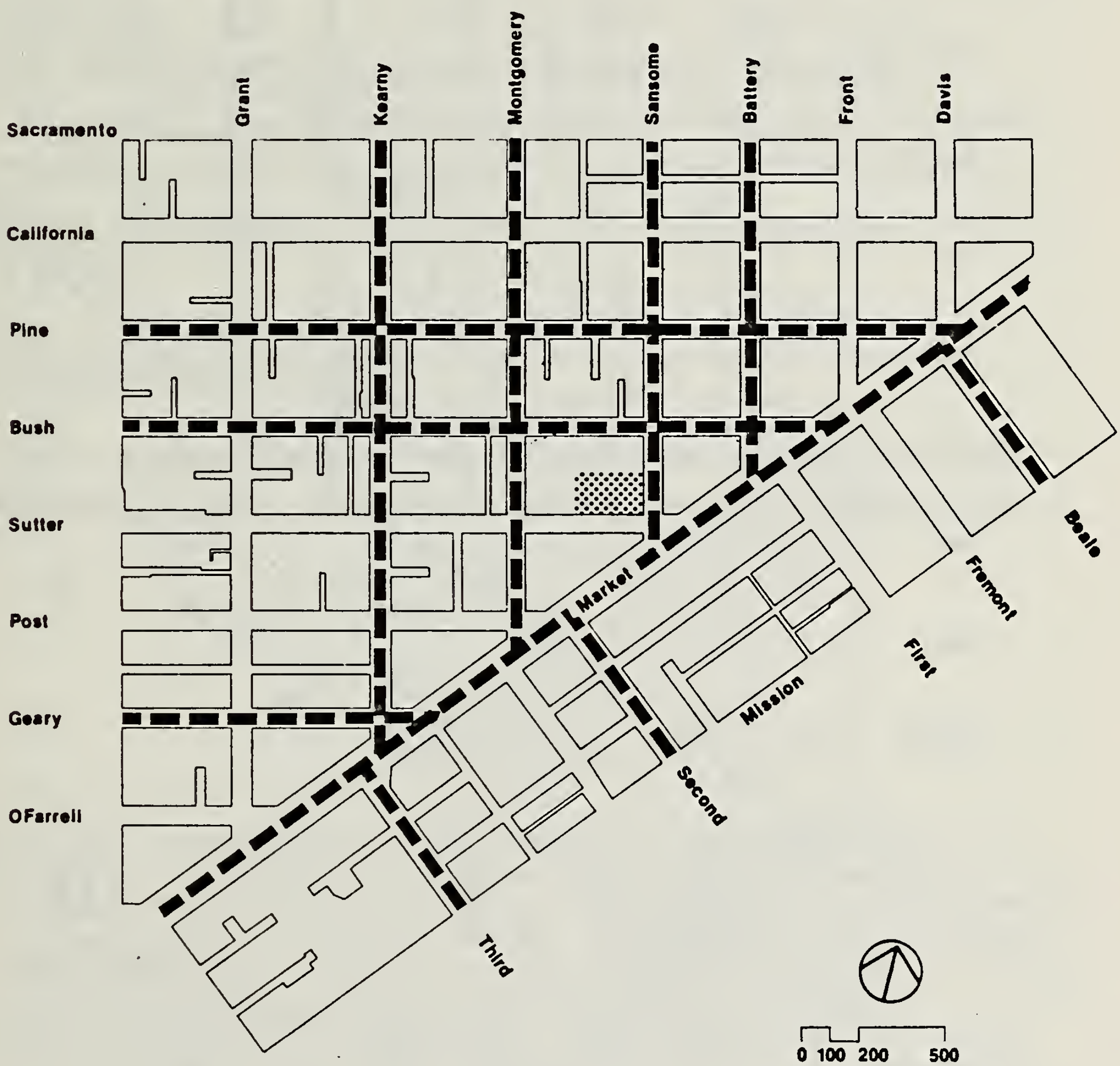


LEGEND

Project Site

figure 29 MAJOR THOROUGHFARES

Source: San Francisco City Planning Commission
The Comprehensive Plan Transportation Element



LEGEND

Project Site

figure 30 **STREETS TO BE IMPROVED AS BICYCLE ROUTES**

Source: San Francisco City Planning Commission
The Comprehensive Plan Transportation Element

LEGEND

Project Site

of Market and one block south of Market (Table 2 and Figure 31).[1] In 1975, garages and lots in this same area were operating at occupancies ranging from 75% to 120% of theoretical capacities.[2] A more recent survey encompassing a larger area, including most of the survey area shown in Figure 31, disclosed a total of 11,600 long-term, commercially available off-street spaces with an average occupancy of 78%.[3] There are 30-minute metered parking spaces on Sansome Street between Sutter and Bush and on Sutter Street between Sansome and Montgomery. There is no parking currently on the project site.

4. Pedestrian Circulation

Sidewalks and crosswalks in the vicinity of the project site were observed to have moderate to high levels of pedestrian

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[1]A survey was conducted by John M.Sanger Associates Inc on 25 October 1978 to verify, update and expand on parking data contained in the 1975 study by the Department of City Planning and the Department of Public Works, Parking in San Francisco and in San Francisco City Planning Commission, Final Environmental Impact Report, 180 Montgomery Street, EE 76.162, certified 28 July 1977, page 51. Additional surveys were undertaken by John M. Sanger Associates Inc on 17 September 1980, 23 September 1980 and 3 October 1980 to further verify and update present parking conditions.

[2]Department of City Planning and Department of Public Works, Parking in San Francisco, San Francisco, 1975. Occupancies often exceed theoretical capacities in parking facilities used for short-term parking due to parking in aisles and high turnover.

[3]San Francisco City Planning Commission, Final Environmental Impact Report, Crocker National Bank No. California Headquarters, EE 78.298, 26 July 1979, page 59.

TABLE 2

PARKING LOTS AND GARAGES WITHIN THREE BLOCKS
OF THE PROJECT SITE*

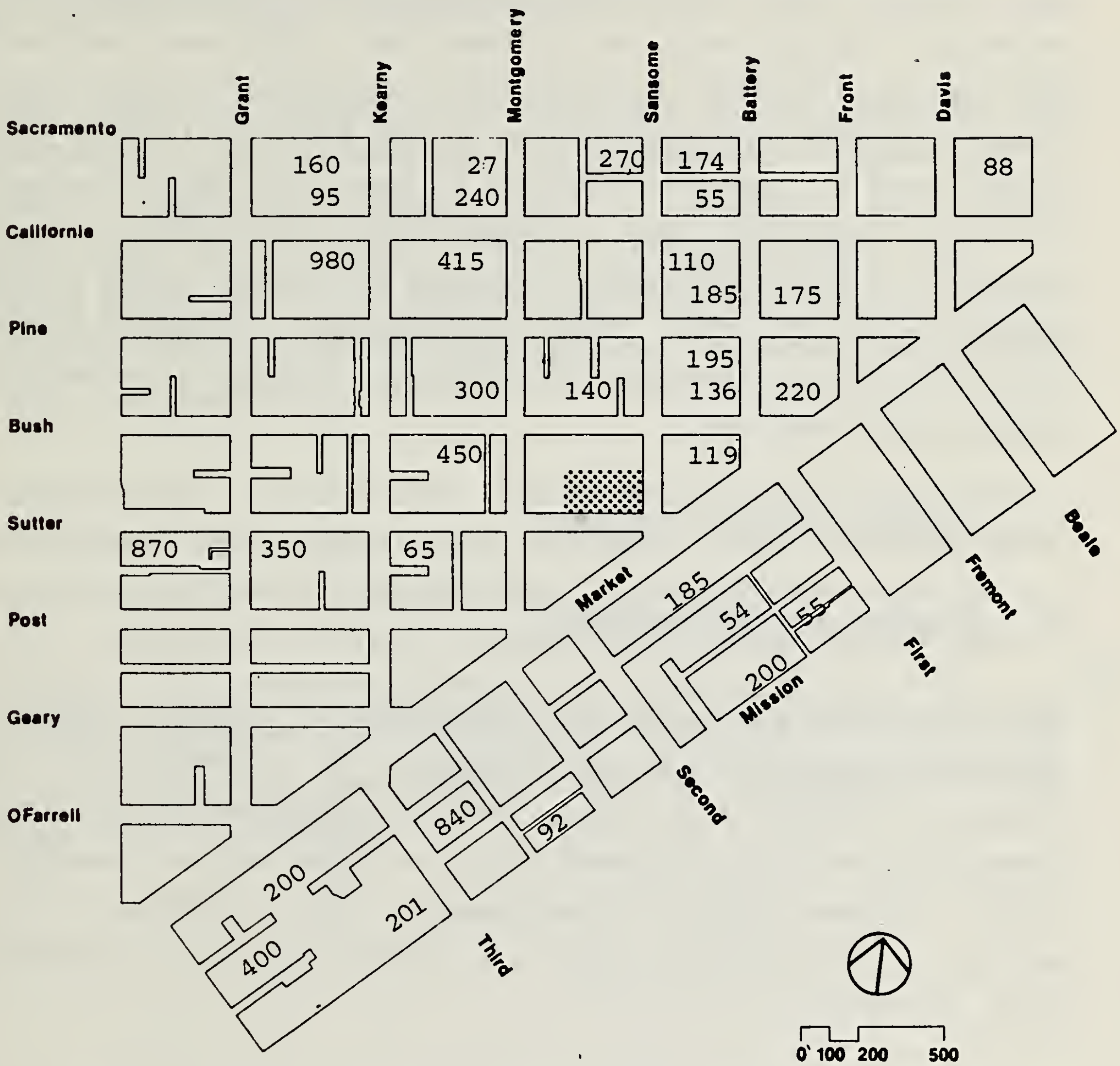
Garage	Address	Off-Street Parking Spaces
320 California	320 California	55
Bank of America Hdqtrs.	555 California	415
Exchange Center	235 Pine	195
Mills Building	220 Bush	140
Financial Center	345 Bush	450
Sutter Hotel	191 Sutter	65
White House Parkade	223 Sutter	350
St. Mary's Square	433 Kearny	980
Russ Building	235 Montgomery	300
222 Sansome Street	222 Sansome	110
R. Stanley Dollar Bldg.	135 Battery	185
Commercial Center	36 Battery	220
Shell Building	35 Battery	136
System Garage	Sacramento (Grant-Kearny)	160
Chevron	Sacramento (Montgomery-Sansome)	270
Chevron	Sacramento (Sansome-Battery)	174
Union Bank	50 California	88
Chevron	Market (1st-2nd)	185
Stevenson	Stevenson (1st-2nd)	54
Sheraton Palace	Jessie (2nd-3rd)	840
Metro Park	4th & Stevenson)	400
Unnamed Lots (11)		2274
TOTAL		8046

*See Figure 31 for survey area.

Source: Field surveys by John M. Sanger Associates Inc, 17 September 1980, 12 September 1980 and 3 October 1980.

figure 31 OFF-STREET PARKING

Source: John M. Sanger Associates Inc, field survey, 17 September 1980.



Note: Approximate number of Off-street parking spaces = 8,046

LEGEND

Project Site

activity during the mid-day and afternoon peak periods.[1] (See Appendix F, page 296, for definitions and calculations of levels of service). Pedestrian flows along both the Sansome and Sutter Street sidewalks are currently operating at level of service C during both the mid-day and afternoon peak periods. During the afternoon peak period, pedestrian flows along the Sansome Street sidewalk north of the BART/MUNI-METRO subway portal are at level of service E, heavier than elsewhere in the vicinity, primarily due to pedestrians approaching the subway portal. Queues of persons waiting for buses along Sutter Street were observed. Both the Sansome and Sutter Street crosswalks were observed to operate at level of service A during both periods.

E. CLIMATE AND AIR QUALITY

1. Climate and Meteorology

San Francisco's climate is determined by the sea breeze characteristics of marine climates. As a result of a steady stream of marine air, there are few extremes of hot and cold. Temperatures rarely exceed 90° F or drop below freezing. The city's warmest month is September, with an average daily high of 69° F; the coolest month is January, with an average daily high of 56° F.

Northwesterly and westerly winds are the most frequent and strongest winds at all seasons in San Francisco. Wind strengths and frequencies are higher in summer. Northwest

---

[1]Field surveys were conducted by John M. Sanger Associates Inc on 4 October 1978 and 17 September 1980 to measure pedestrian flows in the project vicinity. Actual counts are found in Appendix F, Tables F-15 and F-16, pp. 303-306. Existing conditions are described in more detail in Chapter IV for comparison with projected conditions. (See Figures 44-47 pp. 108-111.)

winds occur from 12% to 39% of the time, exceeding 13 miles per hour (mph) 35% of the time and 25 mph 3% of the time. West winds occur from 15% to 40% of the time, exceeding 13 mph 29% of the time and 25 mph 7% of the time.

Wind tunnel tests of localized wind speeds at the project site and vicinity were conducted under conditions of northwest and west winds.[1] The study included tests of existing conditions, conditions with the proposed project, and conditions with alternative projects. Wind speeds are described according to the following scale: low, moderately low, moderate, moderately high, high, and very high.[2]

Under existing site conditions, wind speeds during northwest wind conditions range from low to moderate, with the strongest winds occuring at the Montgomery-Bush intersection and the north side of Crown Zellerbach Plaza. West wind speeds range from moderate to high along Sutter Street adjacent to the project site. Sansome Street and most of the Crown Zellerbach Plaza are sheltered by upwind buildings and experience low to moderately low wind speeds.

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[1]Environmental Impact Planning Corporation, Microclimate Impact Study on the Proposed One Sansome Street Project, San Francisco, California, December, 1978, revised October, 1980. See Appendix G, page 316 for complete test results.

[2]These ranges do not describe actual wind speeds, but percentages of the calibration wind speed. The calibration wind speed is the actual wind speed at the downtown San Francisco Weather Station. The percentages of the calibration wind speeds which correspond to the ranges are shown in the microclimatic study cited in the previous note.

2. Air Quality

Air quality at the site, as in the rest of downtown, is dominated by occasional high levels of two major urban pollutants, carbon monoxide (CO) and oxidant or ozone. The National Ambient Air Quality Standards (NAAQS) for both pollutants are now violated in the San Francisco air basin.[1]

Vehicular exhaust is the principal source of carbon monoxide contributions to violations of air quality standards. Since carbon monoxide originates on city streets, its concentration in a typical urban street is far greater than at the air monitoring site intake 80 feet above street level.

Ozone is formed after several hours of photochemical reaction, and concentrations are more uniform over a large area. Variations in the ozone level are seen on a regional scale. Prevailing northwesterly and westerly winds tend to carry pollutants from San Francisco toward the South Bay and East Bay. When atmospheric stagnation occurs as a result of calm winds and thermal inversions, the entire San Francisco air basin experiences concentrations of pollutants. The more severe ozone problems occur in the warmer interior valleys, near San Jose and Livermore. The ozone experience recorded at the San Francisco monitoring site is a fair representation of the air quality at pedestrian levels at the project site. Nitrogen oxide emissions from vehicles actually depress ozone concentrations at street level.

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[1]The nearest air monitoring station is at the office of the Bay Area Air Quality Management District, 939 Ellis Street, 1-1/2 miles from the site. Historical data on air quality violations for CO and oxidant for this monitoring site are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

In addition to carbon monoxide and ozone, the standard for particulate matter has also been exceeded in the Bay Area. The violations appear localized in the Livermore area, rather than regionwide, and due to construction-generated windblown

dust. No future violations of the primary particulate matter standard are likely.[1] Violations of ambient air quality standards for other pollutants (sulfur dioxide and nitrogen dioxide) are neither observed nor predicted in San Francisco County.[2]

F. NOISE

With the exception of temporary construction or street repair activities, traffic is the major source of noise and vibration at the site. Trucks, buses, automobiles and emergency vehicles are major contributors. Table 3 presents the results of ambient noise level measurements taken at 3 points near the project site (see Figure 32). This data provides a base for comparison with noise levels expected to occur during construction. The typical daytime median ambient noise level ranges from 65 to 70 decibels (dB(A)).[3] Trucks and buses, accelerating from a stop, produce peak noise levels to 85 dB(A). The noise levels at all locations are similar, with measurements taken along Sutter Street slightly higher than Sansome Street due to higher traffic volumes and a higher percentage of buses.

The distribution of noise in the urban environment is neither uniform nor easily predictable. The casual observer walking through San Francisco's Financial District notices that loud noises, such as car horns or diesel bus engines, are echoed

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[1] California Air Resources Board, "Chapter 15, San Francisco Bay Area Air Basin Control Strategy: Comprehensive Revision to the State of California Implementation Plan for the Attainment and Maintenance of Ambient Air Quality Standards", July 1979, pp. 1-2.

[2] Ibid.

[3] dB(A) is the measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale which simulates the response of the human ear to various frequencies of sound.

figure 32 NOISE MONITORING LOCATIONS

Source: Thomas Reid Associates, 30 October, 1980.

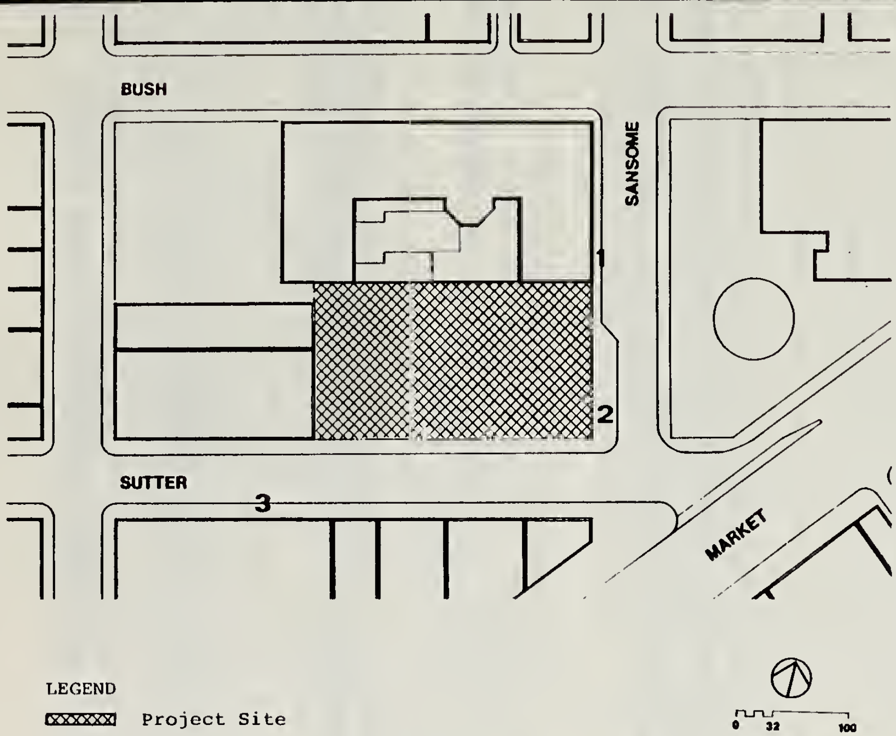

TABLE 3

AMBIENT NOISE LEVELS AT THE PROJECT SITE (dB(A))

Location	Time (PM)	L_{90}	L_{50}	L_{10}	$L_{eq}(8)$	L_{dn}	CNEL	Vehicles Per Hr.	Diesel Buses Per Hr.
Non-Peak Hour									
1	2:00	63	65	69	65.8	69.6	69.9	212	0
2	2:30	63	66	70	66.2	70.0	70.3	380	0
3	2:55	63	66	69	66.0	69.8	70.1	344	0
Peak Hour									
1	4:20	64	66	69	66.2	70.0	70.3	224	0
2	4:45	65	67	71	67.7	71.5	71.8	628	24
3	5:15	64	66	73	67.8	71.6	71.9	384	20

See Figure 32 for noise monitoring locations.

All noise levels are presented in A-weighted decibels (dB(A)). The A-weighting scale ignores frequencies above and below the range of average human hearing to approximate human response.

L_{90}: The noise level exceeding 90% of the monitoring time and known as the residual or background noise level.

L_{50}: The noise level exceeding 50% of the monitoring time and known as the median noise level.

L_{10}: The noise level exceeding 10% of the monitoring time.

$L_{eq}(8)$: The average noise level over an 8-hour period.

L_{dn}: The average day and night noise level. Calculated from the L_{eq} with nighttime (10 pm - 7 am) noise weighted 10 dB higher than daytime noise to account for people's reduced tolerance during quieter hours.

CNEL: Community Noise Equivalent Level. Similar to L_{dn}, with the addition of evening (7-10 pm) noise weighted 3 dB higher than daytime.

Traffic counts were made during each 15 minute monitoring period and converted to hourly vehicle rates.

Source: Thomas Reid Associates, noise measurements taken on 30 October 1980.

back and forth by tall buildings. Conversely, structures block the transmission of sound. The resulting pattern of reflection, reverberation, and attenuation is commonly called the "urban canyon" effect.

The San Francisco Public Works Department has no quantitative information on the urban canyon effect.[1] An indication of the effect, however, can be gained through a comparison of measured noise levels to predicted open field levels for an equivalent number of vehicles passing a point.[2] At an average distance of 25 feet from a stop-and-go traffic stream of 350 vehicles per hour, the predicted L_{50}[3] is 60 dB(A). The L_{50} measured on Sutter Street for 344 vehicles per hour is 66 dB(A), a four-fold increase in acoustic energy over the predicted value (an increase of 3 dB is equivalent to a doubling of the perceived noise level).

G. GEOLOGY AND SEISMICITY

The elevation of the site is approximately 13 feet.[4] As estimated from boring data for the nearby Standard Oil, Wells Fargo, Crown Zellerbach and Equitable Buildings, soils consist primarily of alluvial deposits of sand, silty sand, and clayey sand to an elevation of approximately -100 feet. Near the west

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[1] J. Ross, San Francisco Public Works Department, telephone communication, 30 October 1980.

[2] Wyle Laboratories, Transportation Noise and Noise from Equipment Powered by Internal Combustion Engines, "Methodology for Impact Analysis", Appendix B, page 30, December 1971, prepared for the United States Environmental Protection Agency.

[3] See notes to Table 3 for definition of L_{50}.

[4] All elevations are given with respect to San Francisco City Datum which is 8.6 feet above mean sea level.

end of the site, bedrock was encountered during construction of the Equitable Building at an elevation of approximately -130 feet.

Like the rest of San Francisco, the site is in an active seismic belt, classed by the State of California Department of Natural Resources as within the zone of most severe potential earthquake damage.[1] The San Andreas and Hayward fault systems are about 7 and 12 miles, respectively, from the site. The site is in an "area of liquefaction potential"[2] and an "area of potential subsidence hazard"[3]. Due to these conditions, the proposed project would require the sinking of deep piles to provide support for building weight to minimize settlement and to prevent structural failure in the event of an earthquake.[4]

H. ENERGY

The Pacific Gas and Electric Company furnishes electricity and natural gas to the City and County of San Francisco and steam

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[1] State of California, Division of Mines and Geology, Urban Geology Master Plan for California, Bulletin 1978, Sacramento, California, 1973, pp. 20-21; John Blume and Associates, San Francisco Seismic Investigation, prepared for the San Francisco Department of City Planning, June, 1974.

[2] Liquefaction: Earthquake-induced transformation of a stable granular material, such as soil, into a fluid-like state similar to quicksand.

[3] Subsidence: An uneven local settlement of the ground's surface. Although it can occur under static (normal) conditions, it is frequently activated by strong motion, such as that from a major earthquake.

[4] Lee and Praszker, Consulting Geotechnical Engineers and Geologists, Phase I Report on Geotechnical and Foundation Explorations for the Proposed One Sansome Street Project, San Francisco, California, 30 October 1980. This report is on file and is available for public review at the Department at City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

to much of the downtown area. Existing gas and steam distribution mains and underground electrical facilities are located along the streets bounding the project site. Electrical service is provided to the project site from the Fremont and Folsom Street substation, which has a maximum capacity of 250 megawatts.[1] PG&E obtains some of its electrical energy from geothermal and hydrologic power; new demands will be met by increasing use of coal, oil, natural gas and nuclear power.[2]

Existing energy consumption at the project site is estimated to be approximately 0.8 million kilowatt hours of electricity and 53 million cubic feet of natural gas per year.[3]

I. COMMUNITY SERVICES

The project site is located in Reporting Area 356 in the San Francisco Police Department's Central District. The nearest police station is the Central Station at 766 Vallejo. A police car patrols the project vicinity 24 hours a day; there are no foot patrols.

In 1979, there were 711 reported incidents in the area. The primary crimes reported include burglary, theft and robbery.[4]

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[1]E. Hubeker, Engineering Representative, Pacific Gas & Electric Company, telephone communication, 1 April 1981.

[2]Janice Miller, Public Information Representative, Pacific Gas and Electric Company, telephone communication, 26 June 1981.

[3]Energy use calculations based on 7.9 KWH/yr and 450 cu.ft./yr per square foot of office space; and 8.7 KWH/yr and 730 cu.ft./yr. per square foot of commercial space. San Francisco City Planning Commission, <u>Final Environmental Impact Report, Five Fremont Center</u>, EE80,268, 12 December 1980.

[4]San Francisco Police Department, <u>Incidents for Which a Police</u>

The existing Crocker branch facility at One Sansome has its own internal security guards.[5]

Report Was Made, by District, Plot and Crime, January - December, 1979.

[5] M. Wyman, Security Administration, Crocker National Bank, telephone communication, 16 October 1980.

The San Francisco Fire Department's closest station is at Sansome and Washington Streets, six blocks from the project site. Three engines, two trucks, a chief and rescue squad are assigned to this station. The Fire Department's current response time to the project site is within three minutes.[1] Hydrants connected to the City's domestic low-pressure and high-pressure auxiliary water supply system are located at the corner of Sansome and Sutter and mid-block on Sutter.

The Hetch Hetchy and San Francisco Water Department systems provide water services to San Francisco via Crystal Springs and San Andreas Reservoirs. The project area is served by the University Mound Reservoir, a 140 million gallon storage reservoir located north of McLaren Park. Eight-inch diameter water mains serve the site under Sansome Street with 6-inch mains under Sutter.[2]

The Bureau of Sanitary Engineering of the Department of Public Works provides combined storm and sanitary sewer service in San Francisco. Wastewater from the site flows into a 3-foot brick main under Sutter Street connected to an 8-foot, 6-inch diameter main under Sansome Street.[3] The North Point Water Pollution Control Plant receives dry and wet weather flows from the project area.

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[1]E. Calmoneri, San Francisco Fire Department, telephone communication, 19 September 1980.

[2]Chin & Hensolt Engineering, Inc., Site Survey for Citicorp, July, 1980. A copy of this survey is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3]*Ibid*.

Domestic solid wastes are collected by the Golden Gate Disposal Company. Wastes are taken to a transfer station north of Brisbane and then to a landfill site at Mountain View Shoreline Regional Park. The current contract provides for use by the City through 1983.[1] The City is currently considering the interim use of other landfill sites while reviewing proposals for alternative means of waste disposal. However, no decisions have yet been reached.

Telephone service is provided to the site by Pacific Telephone and Telegraph Company. Telephone lines serving the area run through underground conduits.

J. ECONOMIC AND FISCAL FACTORS

The two existing buildings on the project site contain approximately 152,400 gross square feet of office and retail space. The One Sansome Building consists of 34,050 gross square feet occupied entirely by Crocker National Bank. The Holbrook Building contains 118,350 square feet of gross area on 7 floors. Current annual rents in the Holbrook Building range from \$6 to \$12 per square foot.[2]

Business establishments located at the project site provide employment for about 360 persons. Approximately 40% are employed by banks. Most office tenants are small firms and self-employed individuals including real estate firms, sales agents, accountants and attorneys. Most have short-term or month-to-month leases.

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[1] F. Garbarino, Office Manager, Golden Gate Disposal Company, telephone communication, 25 September 1980.

[2] M. Wildman, Vice-President, Cushman and Wakefield, telephone communication, 10 November 1980.

The 1980-81 assessed value of the project site, consisting of Lots 3 and 4 in Block 289, totals \$2,381,499[1]. At the 1980-81 composite tax rate of \$4.92 per \$100 assessed value, the site will generate \$117,170 in property taxes this fiscal year.

Existing uses at the site generate approximately \$19,500 in sales tax revenues,[2] and \$20,500 in payroll expense and business taxes.[3]

Total current revenues to the City and County of San Francisco generated from the project site include \$99,600 in property taxes,[4] \$3,000 in sales taxes and \$20,500 in business taxes. It is not possible to quantify the cost to the City for fire, police, street lighting, cleaning and maintenance services to the site due to the lack of adequate data and no generally accepted methodology for attributing costs. The costs of providing all City services, including transit, to the site may exceed existing revenues.[5]

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[1]Lot 3, One Sansome, is assessed at \$1,374,124 including \$1,024,056 for the land and \$350,068 for the improvements. Lot 4, Holbrook Building, is assessed at \$1,007,375 including \$840,450 for the land and \$166,925 for the improvements.

[2]Based on the 6.5% sales tax rate on gross receipts of \$300,000; 1% is received by the City and County General Fund.

[3]Based on 363 total employees excluding 156 employed by bank and insurance companies at \$15,000 annually for a total office payroll of \$3,105,000; 60% eligible for tax at a rate of 1.1%.

[4]Assumes that the City and County of San Francisco would receive the same proportion of property taxes as in Fiscal Year 1979-80.

[5]Sedway/Cooke, Downtown San Francisco Conservation and Development Planning Program Phase I Study, October, 1979 pp. 56-58; David Jones, Downtown High Rise District Cost Revenue Study, February, 1981. Other information suggests that total revenues may exceed total costs. Arthur Andersen & Company, Downtown Highrise District Cost Revenue Study, November, 1980. Gruen Gruen + Associates, Fiscal Impacts of

New Downtown High-Rises on the City and County of San Francisco, March, 1981.

CHAPTER IV. ENVIRONMENTAL IMPACTS

A. HISTORICAL AND CULTURAL

The project site is inland of the original shoreline and archival research indicates that the discovery of any known historic structures, sunken hulks or archaeological materials is remote. (See Appendix B, page 260.)

The proposed project would require complete demolition of the Holbrook Building (58 Sutter). It would also require demolition of all but the Sansome Street facade, corner and westernmost portion of the Sutter Street facade of One Sansome (Anglo and London Paris National Bank). Both buildings were nominated for designation as City Landmarks by the Landmarks Preservation Advisory Board[1] and by the City Planning Commission, but the Board of Supervisors denied landmark designation. Both buildings also have been officially designated by the City Planning Commission as "Architecturally and/or Historically Significant Buildings."[2]

The proposed project would contribute incrementally to the loss of architecturally and historically significant buildings in the downtown area. Cumulative development under construction or proposed would involve the loss of approximately 11 architecturally and/or historically significant buildings in

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[1]See Note 1 pages 34 and 36.

[2]San Francisco City Planning Commission, Resolution 8600, 29 May 1980. This resolution is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

the downtown area.[3]

The two buildings fall within the boundaries of a potential National Register Historic District.[4] The historic district

[3]Includes the following buildings contained on the list of architecturally and/or historically significant buildings adopted by the City Planning Commission under Resolution 8600, 29 May 1980: 280 and 353 Battery (Daon Building), 301 and 341 California (Dollar Block), 350 Bush (Russ Building), 46 and 60 Kearny (S.F. Federal), 610 Market (Hunt-Knight), 50 Fremont (Five Fremont), 1 Sansome and 58 Sutter (One Sansome).

[4]An Historic District is a group of contiguous buildings or sites which meet the criteria of the National Register. It is not necessary that each building in a district be individually eligible, or that every building be a positive contributor, but that collectively they represent a unified ensemble that expresses a coherent image of a period in the history of a place or its architecture. Foundation for San Francisco's
(footnote continues on following page)

covers many blocks within the traditional Financial District, ranging from Market Street north to Sacramento Street. Demolition of the Holbrook Building and One Sansome would diminish the continuity of this District, because these two buildings connect a group of buildings on Market and Sutter Streets with the main part of the potential historic district to the north. One Sansome is also a part of a potential National Register Thematic District[1] of Monumental Banks. Loss of its interior and most of its Sutter Street facade would alter its relationship to this District, probably eliminating it from eligibility for the National Register.

The entire facade of One Sansome along Sansome Street, including the original 1908 entrance by Pissis and the 1923 addition by Kelham would be retained in place with the proposed project. An open archway reconstructed from elements of the

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Architectural Heritage, Splendid Survivors, 1979, page 248. Potential eligibility was identified vis-a-vis published National Register criteria, but no nominations have been made. M. Corbett, Charles Hall Page & Associates Inc., memorandum, 6 November 1980. This memorandum is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[1]A Thematic District is a group of buildings or other cultural resources in a city or other defined area that meet the criteria of the National Register, but which are not necessarily on contiguous sites, and which represent a unified theme. For example, monumental banks in downtown San Francisco constitute a group of 18 buildings that are not contiguous but which collectively contribute to the distinctive architecture and historic character of downtown San Francisco. Foundation for San Francisco's Architectural Heritage, Splendid Survivors, 1979, page 248. Potential eligibility was identified vis-a-vis published National Register criteria, but no nominations have been made. M. Corbett, Charles Hall Page & Associates, Inc., memorandum, 6 November 1980. This memorandum is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

Sutter Street facade would complete the corner at Sansome and Sutter and enclose a public entry court in front of the new building. (Figure 33)

The interior banking hall would be destroyed, replaced by a public court enclosed by the retained facade elements (Figure 34). According to the project architects, the interior of the court would be "lined with arched walls of white granite and embellished with fern trees and fountains, historically compatible with the neo-classic Beaux Arts style of the existing facade".[1] The public entry court would be visible and accessible from the sidewalk through the arched entries leading to the retail arcade and the tower lobby (Figure 35). Seating would be included for pedestrians.

B. URBAN DESIGN

1. Relationship of the Project to the Comprehensive Plan

The Urban Design Element of the San Francisco Comprehensive Plan contains policies and principles intended to serve as guidelines for new development and for the preservation of architecturally or historically significant buildings.[2] The San Francisco Department of City Planning has developed more

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[1] William L. Pereira Associates, "Description of Design Concept", memorandum, 15 October 1980, This memorandum is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319. Others have disagreed with this opinion. Transcript of Proceedings of the Public Hearing Before the San Francisco City Planning Commission, Draft Environmental Impact Report One Sansome Building, 14 May 1981, pp. 5, 8, 9.

[2] San Francisco City Planning Commission, Resolution 6745, 26 August 1971, The Comprehensive Plan, Urban Design Element, p.1.

specific guidelines for major new development and is studying new approaches to address urban design and other issues related

figure 33 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

FACADE PRESERVATION

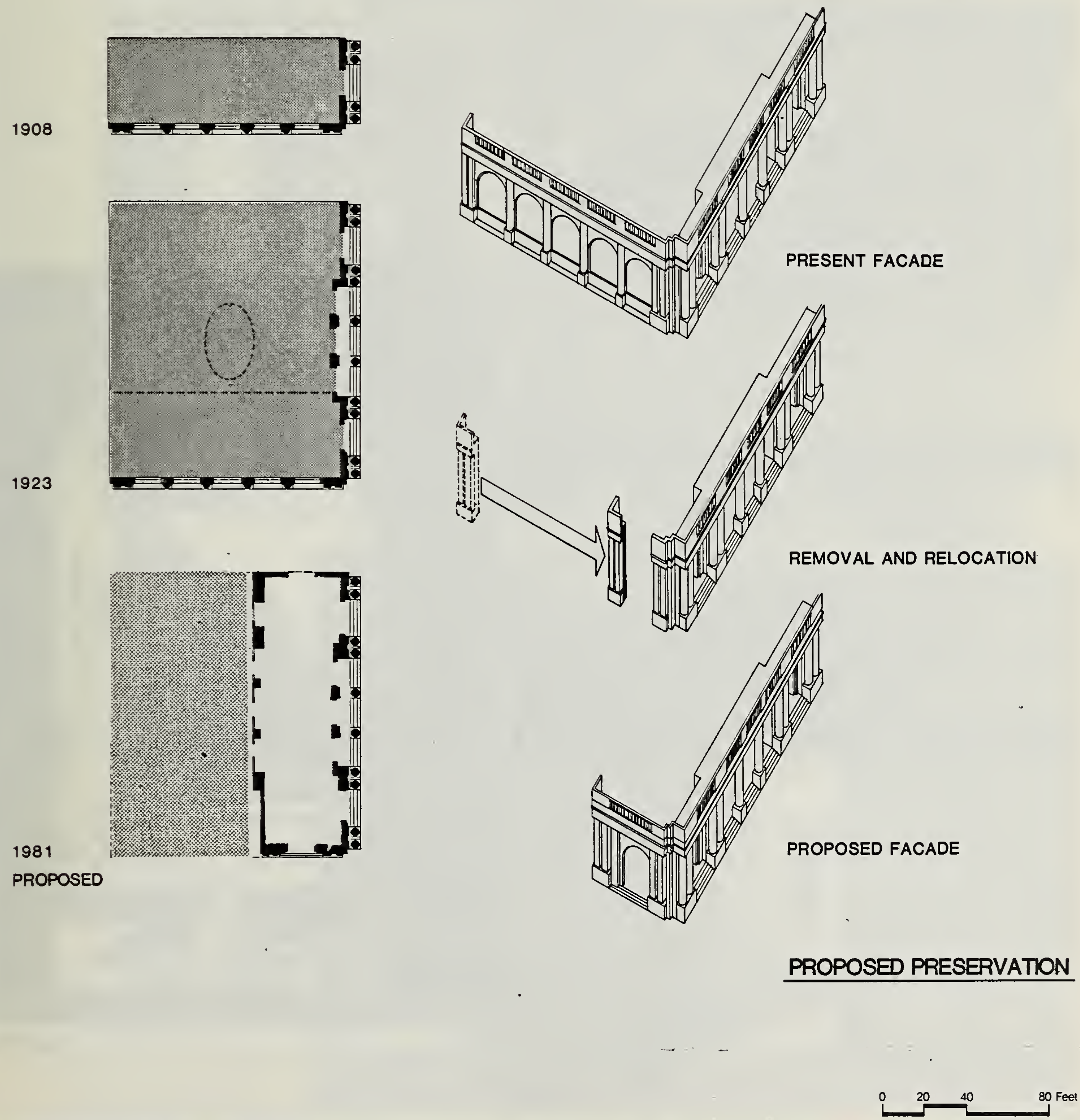
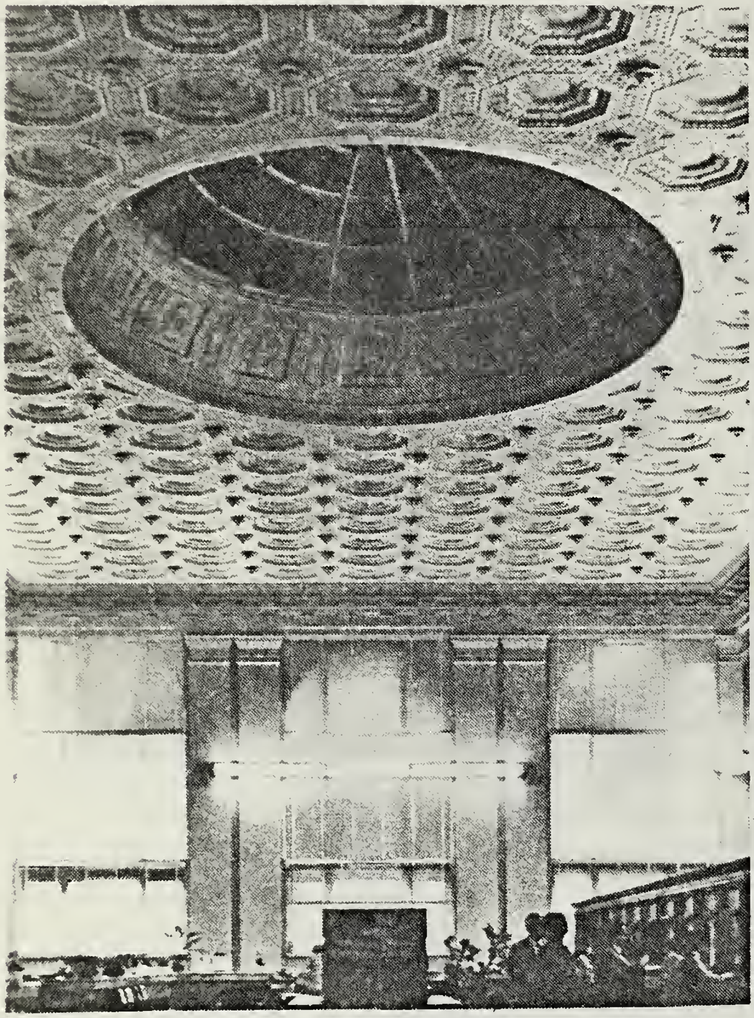


figure 34 PROPOSED ONE SANSOME PROJECT

Source: William L. Pereira Associates ● VIEW OF PROPOSED PUBLIC ENTRY COURT



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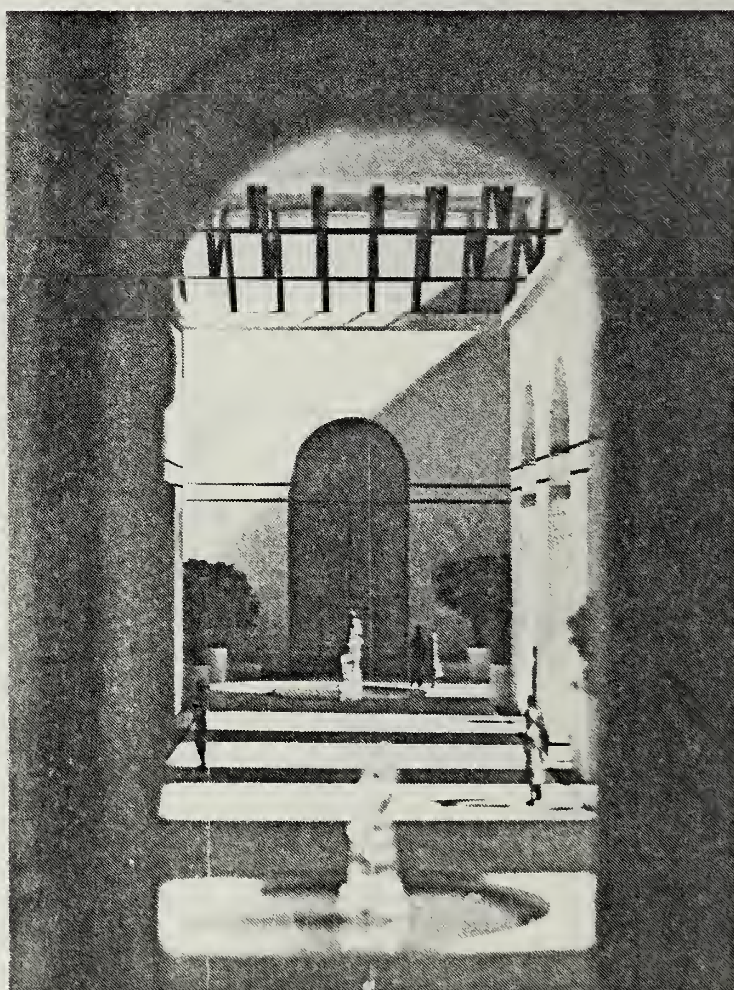

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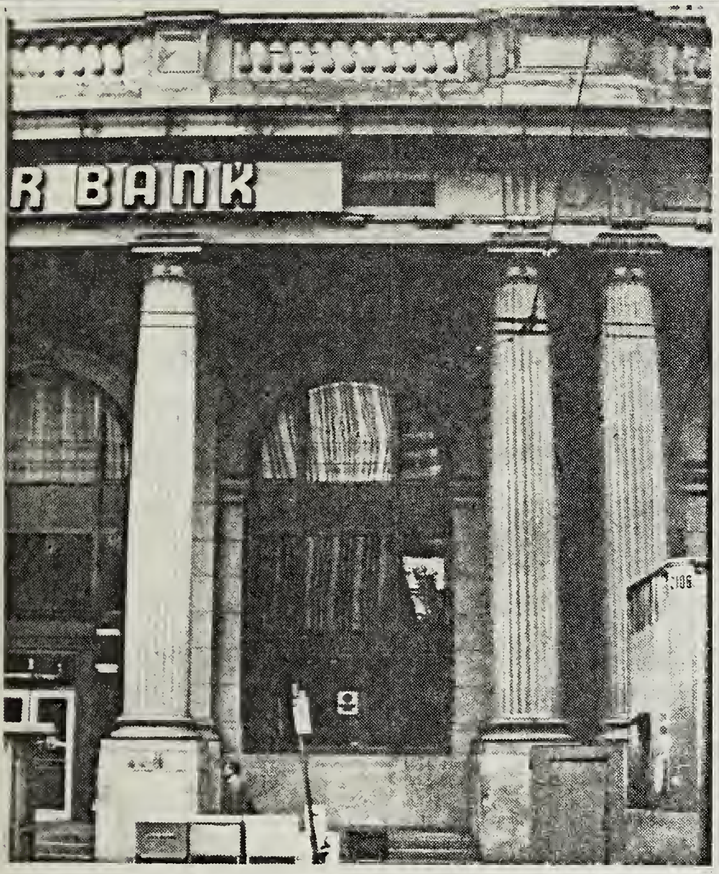
figure 35 PROPOSED ONE SANSOME PROJECT

Source: William L. Pereira Associates

VIEW FROM SANSOME STREET



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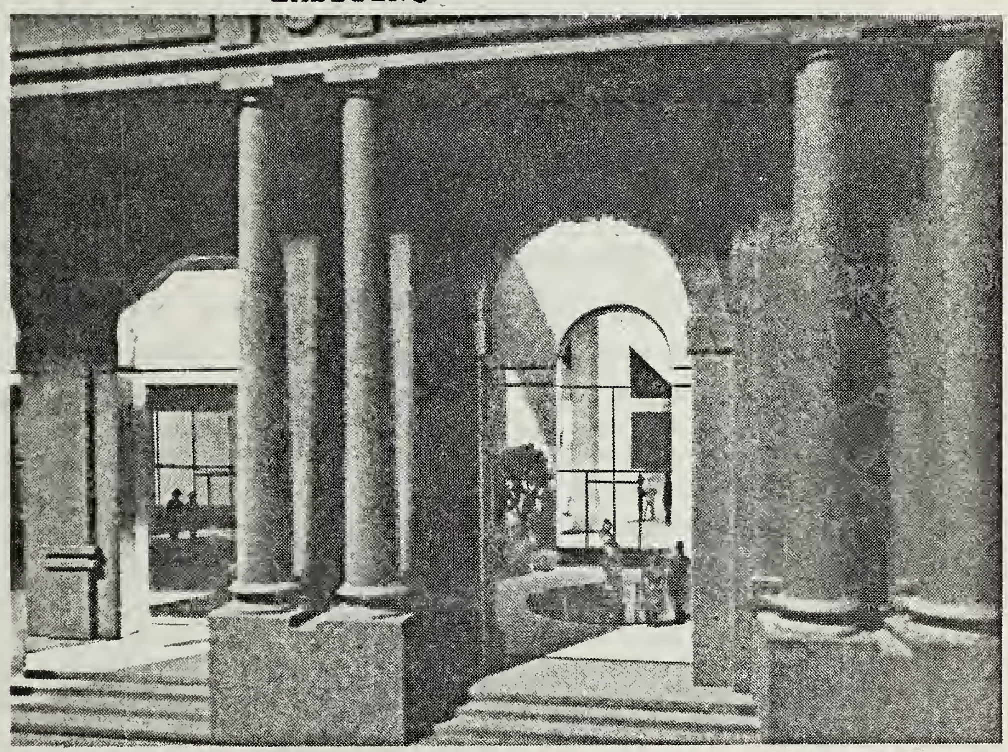

PROPOSED

to downtown growth.[1] The policies contained in the Plan are used as the basis for evaluation of the proposed project with respect to its urban design implications. The relationship between the applicable urban design policies of the Comprehensive Plan and the proposed project is summarized in Table 4.

2. Project Visibility

The street-level view of the proposed project along the immediately adjacent sidewalk on Sansome Street would be essentially the same as that offered by the existing building, except that the proposed plaza, retail arcade and tower lobby would be visible through the arched entries to the plaza (Figure 36, page 78). The new tower would be visible above the existing facade from the east side of Sansome Street between Sutter and Bush, from the Crown Zellerbach Plaza, and from Market Street between Battery and Sansome (Figure 37, page 79).

The project would be visible from mid-range view points and from higher topography and buildings to the north, west and south as part of a group of buildings of similar height and form which contribute to a uniform skyline profile. However, part of the mechanical penthouse would rise above the top of the tower to distinguish the proposed project from other buildings. The project would be visible along with other high-rise buildings from Highway 101 and Potrero Hill to the south (Figures 38 and 39, pages 80-81). The project would be partially

Text continues on page 82

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[1] San Francisco Department of City Planning, "Design Guidelines for Major New Development (A supplement to the San Francisco Urban Design Plan)", August 1978 and San Francisco Department of City Planning, Approaches for Resolving Issues of Downtown Conservation and Development, September, 1980. This material is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

TABLE 4

RELATIONSHIP BETWEEN THE PROPOSED PROJECT AND APPLICABLE URBAN DESIGN POLICIES OF THE SAN FRANCISCO COMPREHENSIVE PLAN

APPLICABLE URBAN DESIGN POLICIES	RELATIONSHIP OF THE PROPOSED PROJECT TO THE POLICIES
A. Policies for City Pattern	
1. Policy 1: "Recognize and protect major views in the City, with particular attention to those of open space and water." (pg. 10)	The project site is located outside of the City's major designated view corridors along Pine and California Street, 2 and 3 blocks to the north. The project would be set back from the Equitable Building. However, most views to the east from the building would be disrupted by the project and other high-rise structures on Market Street. The project would also be set back from the Standard Oil Building. Most views to the south from that building would be obstructed. The project would not affect views from Sutter Street toward the Bay.
2. Policy 3: "Recognize that buildings, when seen together, produce a total effect that characterizes the City and its Districts." (pg. 10)	The proposed project would contribute to a more uniform skyline image when seen together with other downtown high-rise towers, and would contribute to the visual identity of the central business district
3. Policy 6: "Make centers of activity more prominent through design of street features and by other means." (pg. 12)	The proposed public entry court and retail arcade would provide an activity center for pedestrians. The columned facade of the One Sansome building would distinguish the plaza as a prominent and unique public space.

4. Policy 8: "Increase the visibility of major destination areas and other points of orientation." (pg.13)	The proposed project would introduce another high rise tower into the skyline of the downtown area, increasing the visibility of the central business district.

TABLE 4 (Continued)

APPLICABLE URBAN DESIGN POLICIES	RELATIONSHIP OF THE PROPOSED PROJECT TO THE POLICIES
B. Policies for Conservation	
5. Policy 4: "Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development." (pg. 25)	The project would demolish the Holbrook Building at 58 Sutter and much of the One Sansome Building. The facade of the One Sansome Building along Sansome and partially along Sutter would be retained, preserving some architectural and historic qualities and retaining a degree of continuity with the adjacent Standard Oil Building.
6. Policy 6: "Respect the character of older development nearby in the design of new buildings." (pg. 25)	The proposed project would be comparable in scale to other nearby highrise buildings, although higher than immediately adjacent buildings. It would be composed of pre-cast concrete similar in color and texture to the existing One Sansome building and the adjacent Standard Oil Building. The new building would be sited in order to permit retention of the Sansome Street facade of the existing One Sansome Building and to maintain distance from the Equitable and Standard Oil buildings. Most of the rear elevation of the Standard Oil Building would not be visible from Market Street.
C. Policies for Major New Development	
7. Policy 1: "Promote harmony in the visual relationships and transitions between new and older buildings." (pg.36)	The proposed project would maintain the uniform arched street facade created by the Standard Oil Building and the existing One Sansome Building by retaining the existing facade along Sansome Street. The rhythm

TABLE 4 (Continued)

APPLICABLE URBAN DESIGN POLICIES	RELATIONSHIP OF THE PROPOSED PROJECT TO THE POLICIES
	created by columns and arches in the existing facade along Sutter would be continued by similar spacing of the columns in the new tower and its entry arcade. The existing cornice line, entablature and balustrade of the One Sansome facade would be parallelled by special treatment of the facade of the tower within the same horizontal band and recess at the third floor above the existing building. The transition in height between the Standard Oil Building and the new tower would be moderated by its siting in relation to the Standard Oil Building court and its setback from Sansome Street.
8. Policy 2: "Avoid extreme contrasts in color, shape and other characteristics which will cause new buildings to stand out in excess of their public importance." (pg. 36)	The proposed building would be basically rectilinear in shape. Exterior surfaces would be medium to light colored similar to adjacent buildings, with proportions of windows to wall surface similar to that of adjacent buildings.
C. Policies for Major New Development	
9. Policy 3: "Promote efforts to achieve high quality of design for buildings to be constructed at prominent locations." (Pg. 36)	The proposed project is intended by its sponsors to achieve the high quality of design called for by its location. Several alternative designs were previously considered, and presented for review by the Department of City Planning and interested groups.

TABLE 4 (Continued)

APPLICABLE URBAN DESIGN POLICIES	RELATIONSHIP OF THE PROPOSED PROJECT TO THE POLICIES
10. Policy 4: "Promote building forms that will respect and improve the integrity of open space and other public areas." (pg. 36)	The project would retain the facade of the One Sansome Building along Sansome Street and at the corner of Sansome and Sutter, maintaining the function served by the existing building in providing a building edge opposite the Crown-Zellerbach Plaza, while creating an enclosed public public entry court The new tower would interfere with most views of the Standard Oil Building's rear court from Market Street. The opening of the arches of the existing facade would permit visual and pedestrian access into the new public entry court. The new tower would shade a strip at the northwest corner of the Crown-Zellerbach Plaza at midday during the spring and fall and a larger strip at the western edge of the plaza during the summer.
11. Policy 5: "Relate the height of buildings to important attributes of the City pattern and to the height and character of existing development." (pg. 36)	The proposed project would be higher than existing development on the project block, but the preservation of the facade would help maintain existing scale at street level.
12. Policy 6: "Relate the bulk of buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction." (pg. 37)	The horizontal and diagonal dimensions of the proposed project would be comparable in scale to those of other new highrise buildings in the area. The corners of the tower would be rounded to reduce apparent bulk. It would also be set back from both the adjacent Standard Oil and Equitable Buildings.

TABLE 4 (Continued)

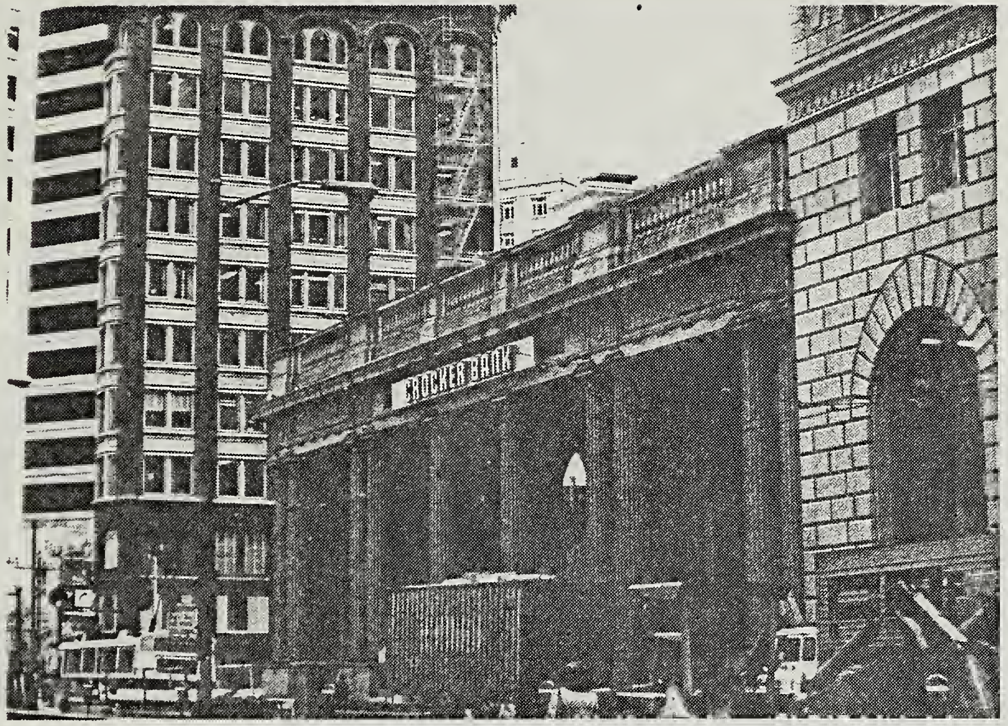
APPLICABLE URBAN DESIGN POLICIES	RELATIONSHIP OF THE PROPOSED PROJECT TO THE POLICIES
D. Policies For Neighborhood Environment	
13. Policy 3: "Provide adequate lighting in public areas." (pg. 55)	No lighting plan has been prepared; however the public entry court would be lighted.
14. Policy 12: "Install, promote and maintain landscaping in public and private areas." (pg. 57)	No landscaping plan has been prepared; planters and other landscaping would be included in the public entry court.
15. Policy 13: "Improve pedestrian areas by providing human scale and interest." (pg. 57)	The proposed project would provide a shorter walking distance for pedestrians across the property through the new public entry court, with seating, fountains and sculpture. It would also include a retail arcade in the new tower adjacent to the public entry court.

Source: San Francisco City Planning Commission, Resolution 6745, The Comprehensive Plan, Urban Design Element, 26 August 1971. Page references are shown in parenthesis.

figure 36 PROPOSED ONE SANSOME PROJECT

Source: William L. Pereira Associates

VIEW FROM SANSOME STREET (TOWARD SUTTER STREET)



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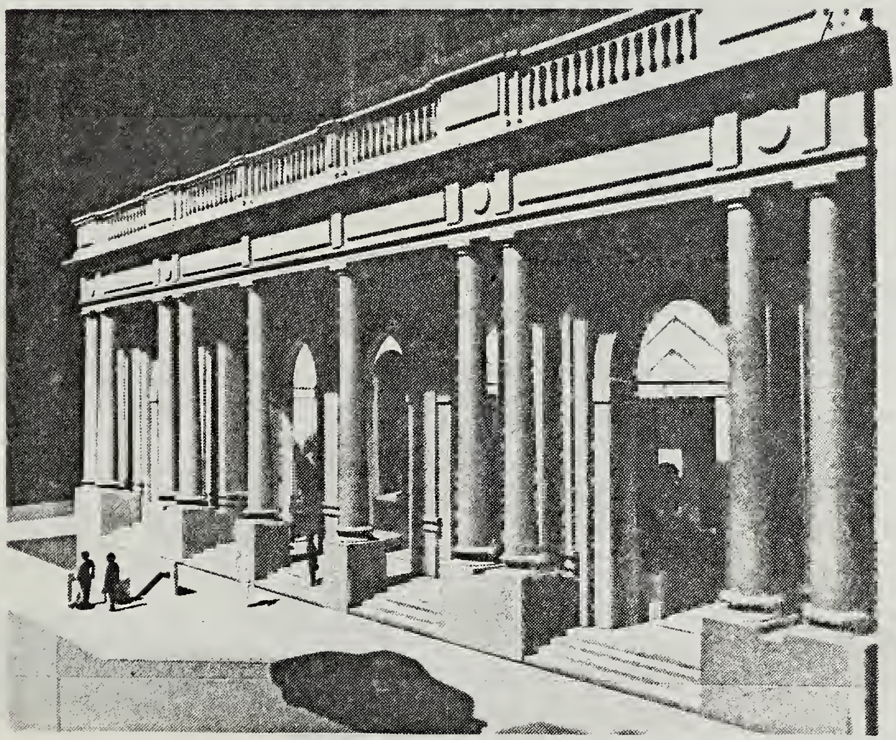

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figure 37 PROPOSED ONE SANSOME PROJECT

Source: William L. Pereira Associates

VIEW FROM MARKET STREET

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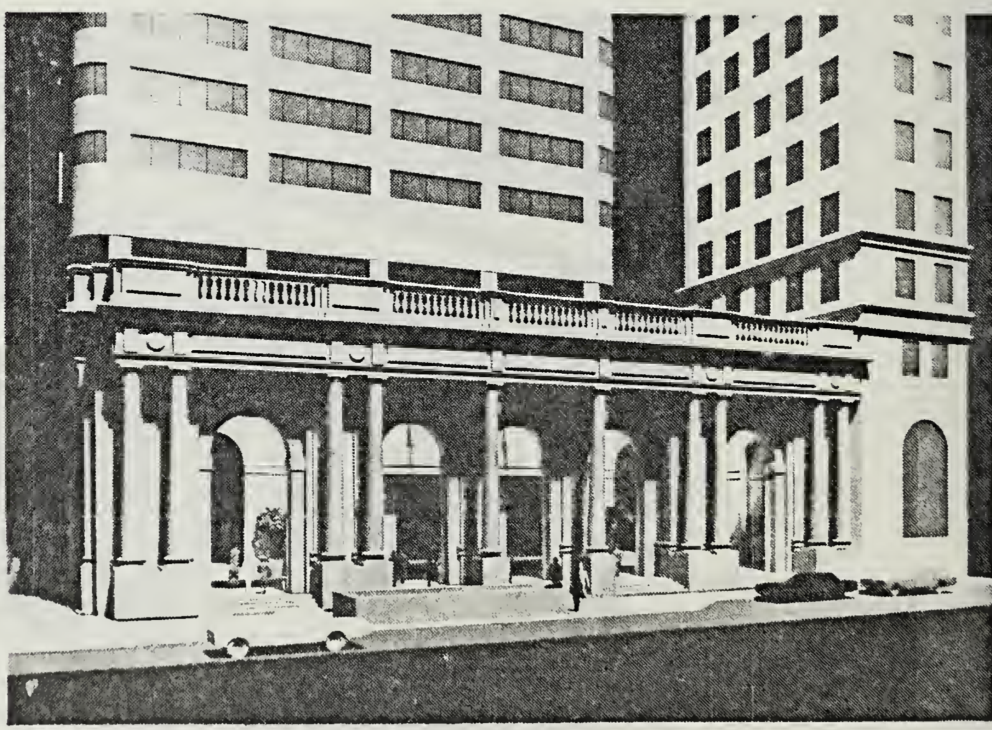

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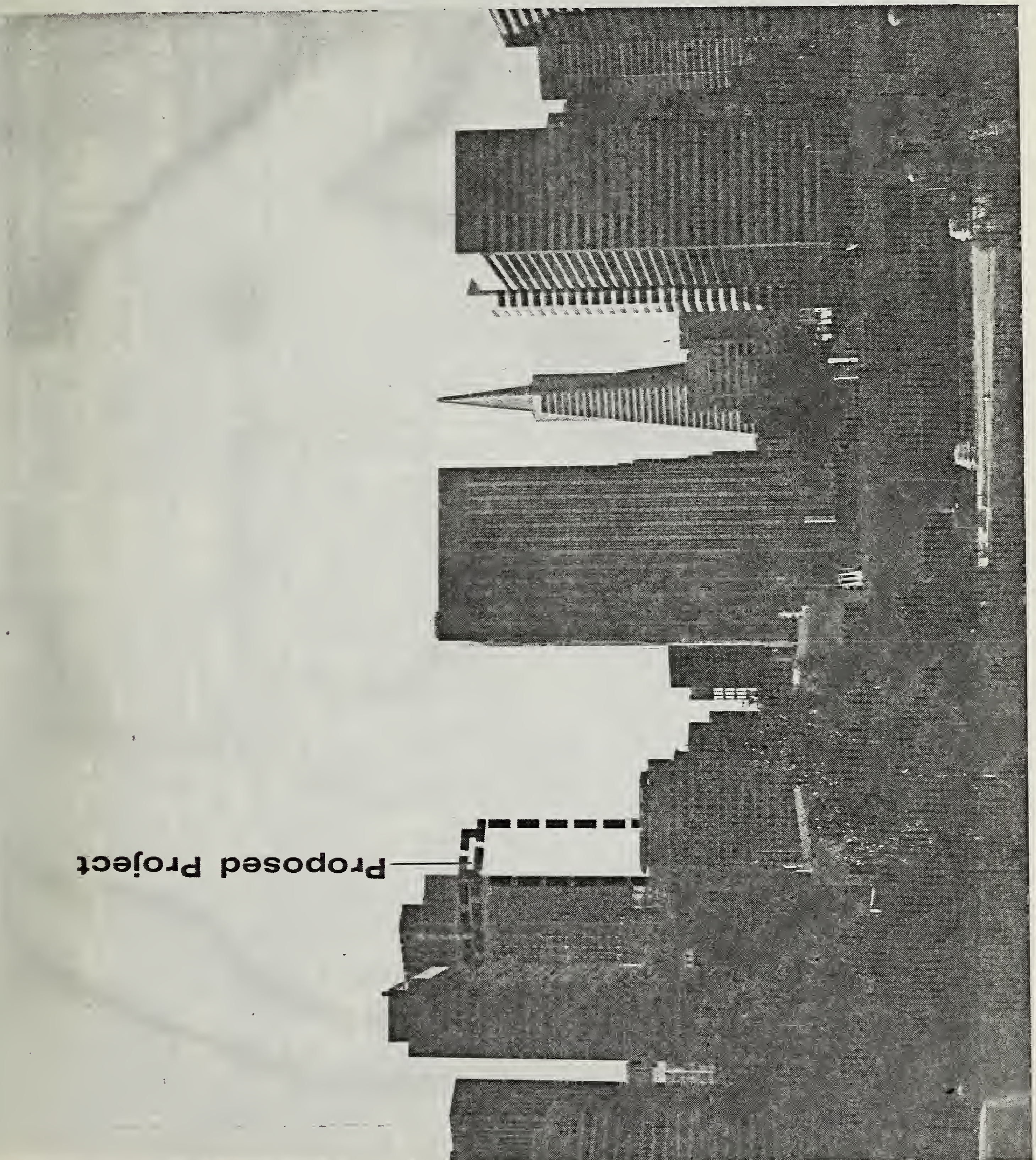
figure 38

VISUAL IMPACT

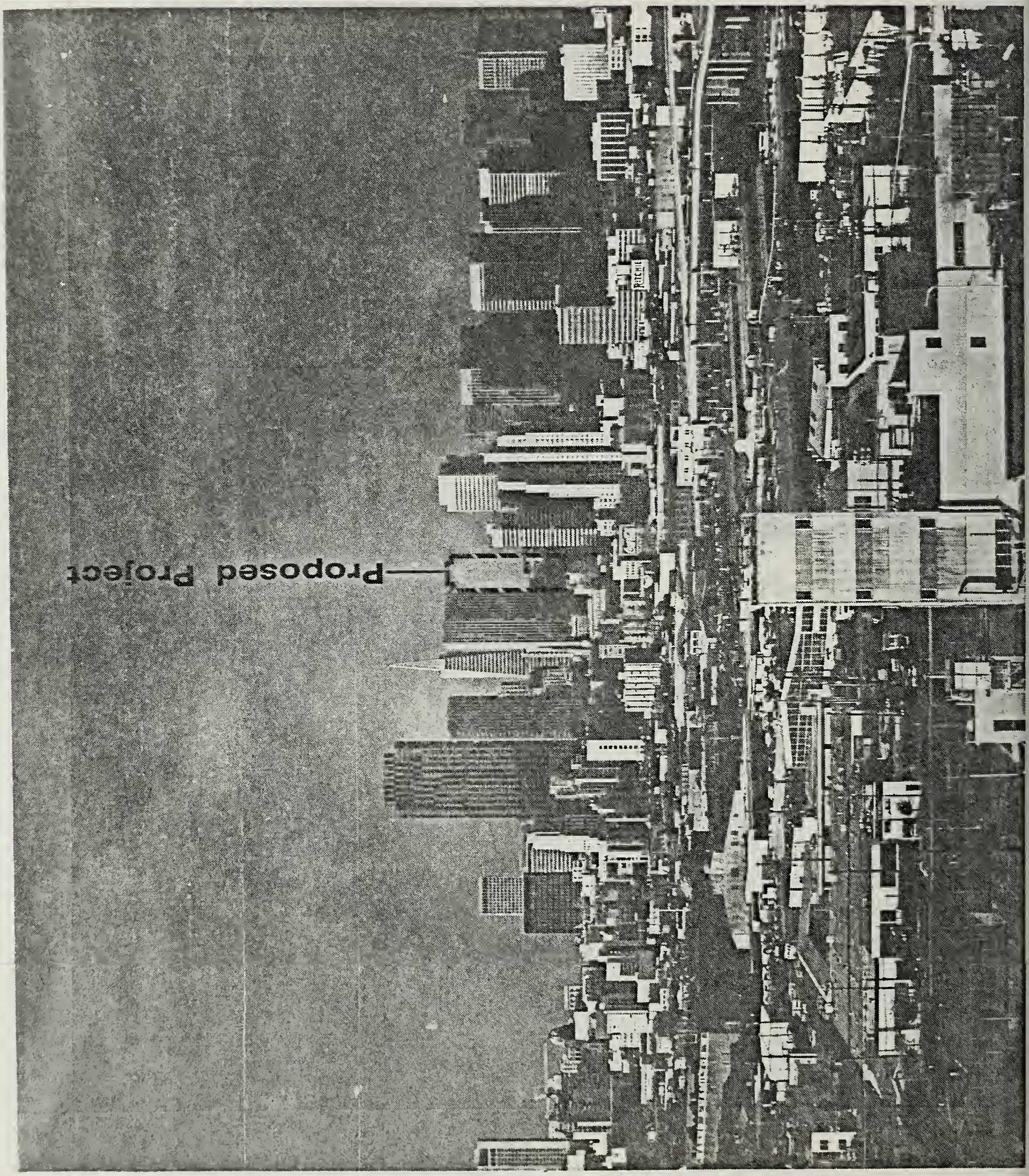
Source: John M. Sanger Associates Inc

VIEW FROM BAYSHORE FREEWAY (U.S. 101)



Source: John M. Sanger Associates Inc

VIEW FROM POTRERO HILL



visible or not visible from long range view points because of existing and proposed high-rise structures. From the Marin Vista point at the north end of the Golden Gate Bridge, a portion of the proposed project would be visible. The proposed project would not be visible from the Yerba Buena Island viewpoint.

The cumulative effect of existing and proposed high-rise buildings on the San Francisco skyline is shown in Figures 40 and 41. Structures under construction or proposed which would be visible from Yerba Buena Island include the office buildings at 315 Howard Street, 444 Market Street, the Pacific Gateway Building, Four Embarcadero Center and 101 California Street (Figure 40). Structures under construction or proposed which would be visible from the Marin Vista Point include 444 Market Street, 101 California Street, Four Embarcadero Center and part of One Sansome (Figure 41).

C. LAND USE AND ZONING

1. Intensity of Development

The block on which the project is located is about 2.6 acres in area and presently supports approximately 1.67 million gross square feet of development in six buildings.[1] The average floor area ratio (FAR) is 14.8:1. **The project FAR would be 21.5 to 1.** The project would increase the amount of development on the project block to 2.47 million gross square feet. Total development would increase 40%, increasing the average FAR for the block from 14.8 to 1 to 21.8 to 1 (Figure

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[1]As follows, One Sansome (34,000 gross square feet (GSF)); 58 Sutter (118,000 GSF); 120 Montgomery (430,000 GFS); 130 Montgomery (19,000 GSF); 180 Montgomery (382,000 GSF); and 225 Bush (690,000 GSF).

42, page 85). Buildings with a higher FAR than the proposed project include the existing Wells-Fargo Bank Building at 44 Montgomery with an FAR of 23.9 and the Tishman-Cahill Building at 525 Market with an FAR of 23.6

figure 40 CUMULATIVE VISUAL IMPACT

Source: Environmental Science Associates
& John M. Sanger Associates Inc

Note: Proposed project not visible

VIEW FROM YERBA BUENA ISLAND

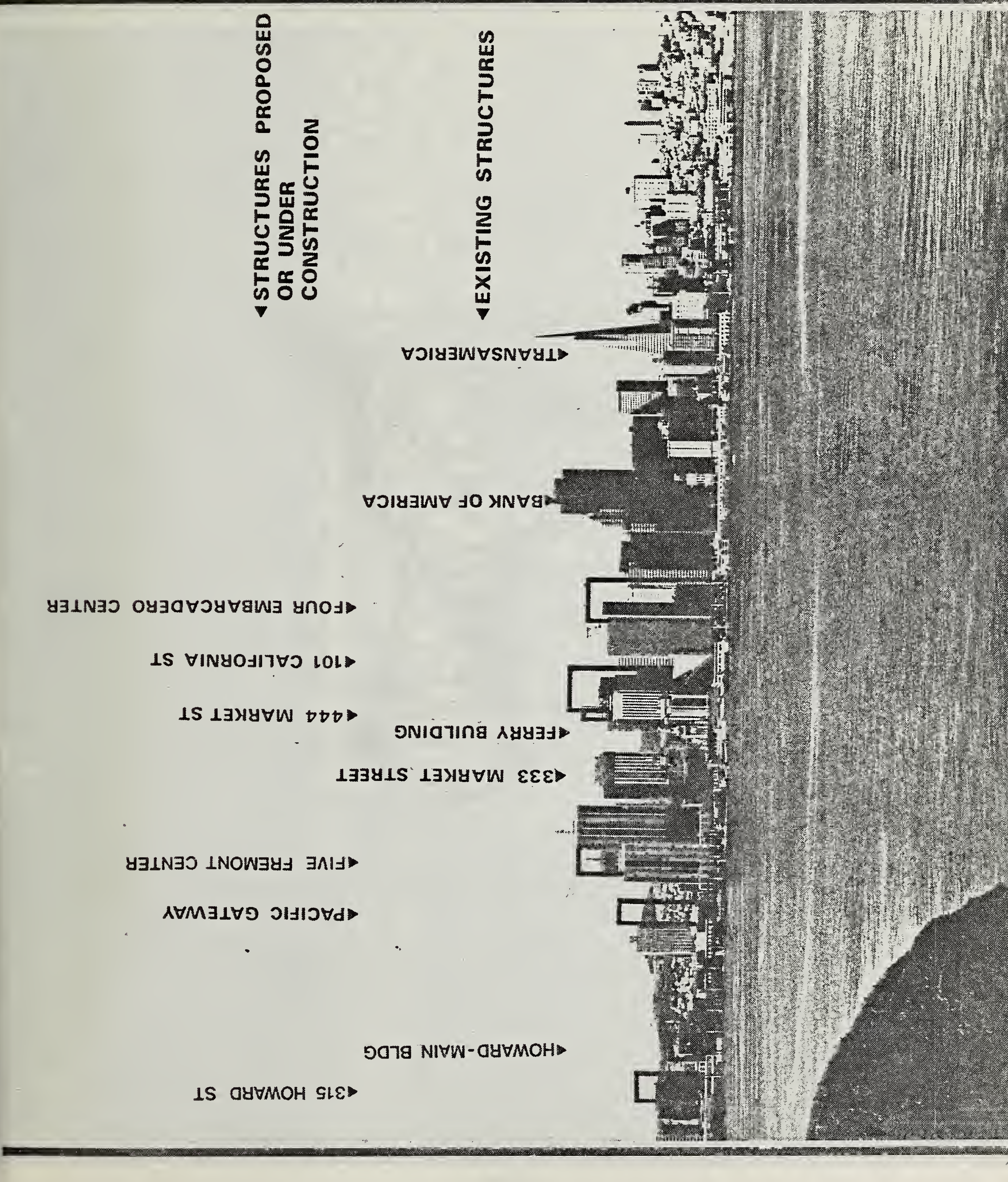


figure 41 CUMULATIVE VISUAL IMPACT

Source: Environmental Science Associates & John M. Sanger Associates Inc

VIEW FROM GOLDEN GATE BRIDGE VISTA POINT

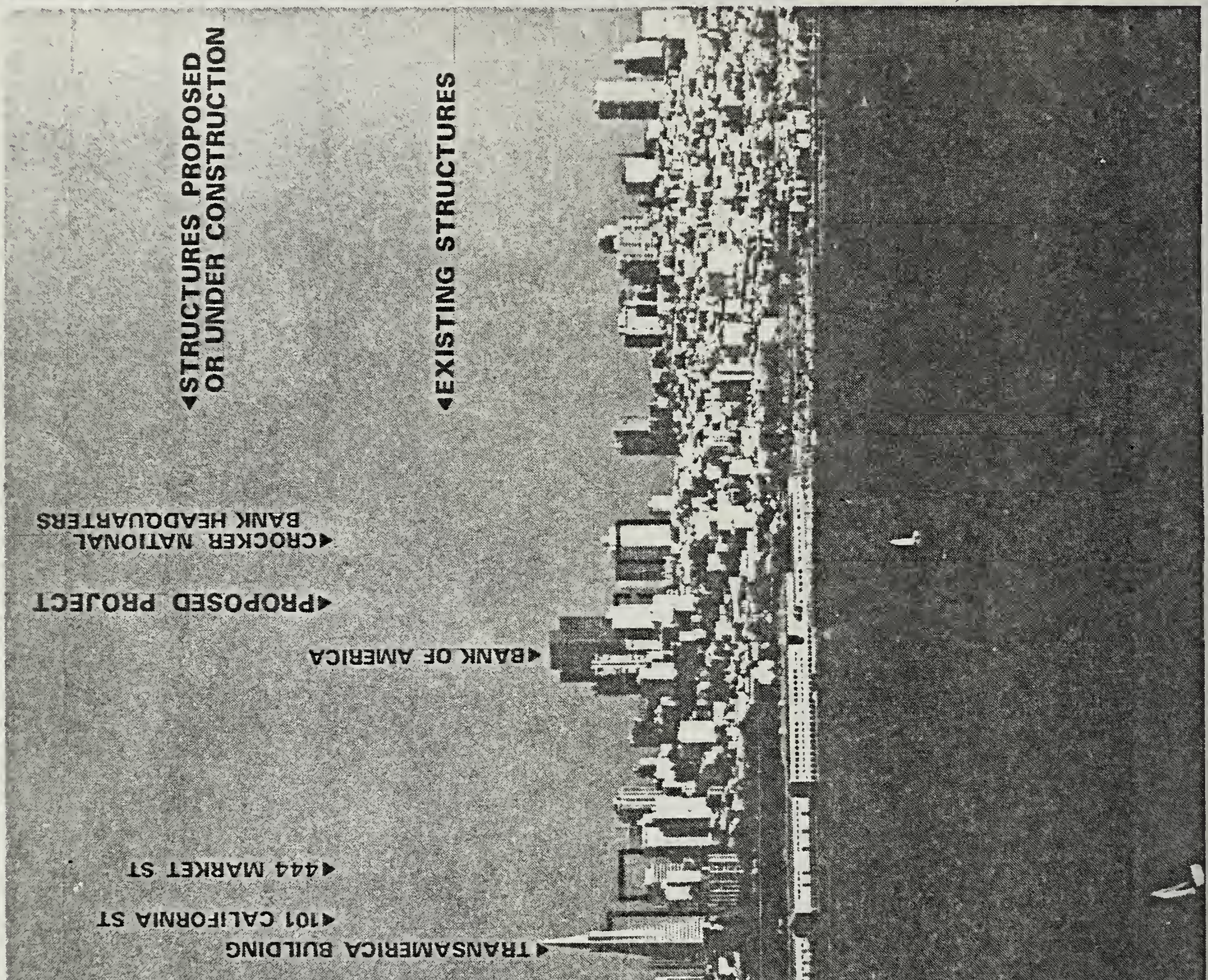
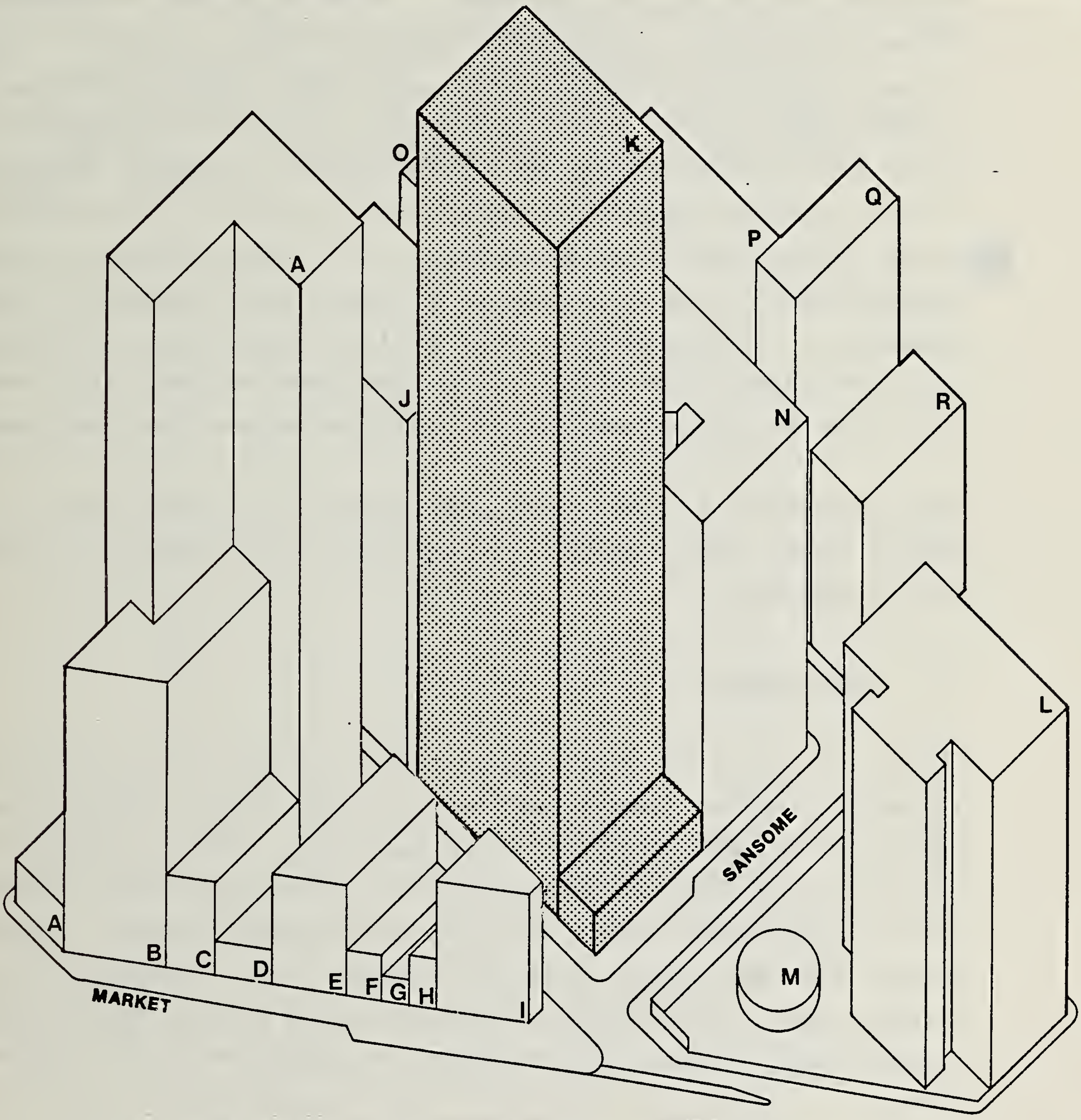


figure 42

SITE AND VICINITY MAP WITH PROPOSED PROJECT

Source: John M. Sanger Associates Inc



Building (Number of stories)

A	44 Montgomery (42)	K	Proposed One Sansome Project (40)
B	Hobart Building (7)	L	Crown Zellerbach Building (19)
C	580 Market (2)	M	Wells Fargo Bank & (1) Crown Zellerbach Plaza
D	570 Market (2)	N	Standard Oil Building (22)
E	Chancery Building (8)	O	180 Montgomery (25)
F	560 Market (4)	P	Mills Building (10)
G	554 Market (2)	Q	Mills Tower (21)
H	550 Market (3)	R	115 Sansome (12)
I	Flat Iron Building (11)		
J	Equitable Building (25)		

2. Office and Retail Space

The project would add about 658,000 net square feet to the downtown office space inventory. This increment represents 40% of average annual construction between 1970 and 1979. This project and other proposed projects under construction or under review totalling 16.2 million gross square feet represent an estimated 10 year supply of office space, assuming absorption at the historic 1970-1979 construction rate of 1.6 million gross square feet per year (Table 5). Office space has been constructed in the Bay Area at a faster pace outside of San Francisco. Approximately 23.7 million square feet of space was built outside of the City in the Bay Area between 1970 and 1979 at a rate of approximately 2.4 million square feet per year.[1]

The project would also add about 6,500 net square feet of retail space and 11,000 net square feet for retail or banking use at the site.

3. Open Space

There are about 100,000 square feet of public open space within a 2-block radius (about 800 feet) of the site, provided by the plazas of 7 office buildings (Figure 43). Two of these plazas are more than 20,000 square feet in area; the others average 6,700 square feet each. The Crown Zellerbach Plaza, located across Sansome Street from the project site, consists of 21,500 square feet. The proposed project would create about 5600 square feet of public open space, an increase of 5% within this area.

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[1]Association of Bay Area Governments, Bay Area Office Growth, May, 1981.

4. Zoning

The proposed project conforms with the San Francisco City Planning Code as it applies to this project. The height of the project would be about 560 feet, 140 feet lower than the maximum permitted height of 700 feet; the diagonal dimension would be 199 feet, 1 foot less than the maximum 200 feet permitted

TABLE 5

POST-WAR OFFICE GROWTH IN DOWNTOWN SAN FRANCISCO

Completed	Period Years	Number	Total Gross Square Feet (Millions)	Building Average Square Feet (Thousands)	Range Square Feet (Thousands)	Annual Average Rate Square Feet (Thousands)	Range # of Stories
1945-1949	5	3	0.5	178	100 to 250	100	11-14
1950-1959	10	10	2.4	240	138 to 430	240	7-25
1960-1969	10	22	10.3	468	119 to 1,771	1,030	20-52
1970-1979	10	27	16.2	594	100 to 1,375	1,603	11-48
1980	1	2	0.4	203	183 to 223	--	13-15
Subtotal Built	---	64	29.6	--	--	--	--
Under Construction[1] 1981-1983	3	11	7.3	667	120 to 1,300	--	12-48
Approved[2] 1981-1983	3	8	4.1	508	111 to 1,375	--	18-24
Proposed (Under EIR Review)[3] 1983	1	13	4.8	372	113 to 900	--	24-42
TOTAL		96	45.8				

Table continued on following page.

TABLE 5 (Continued)

[1]Buildings under construction include: 444 Market Street, Four Embarcadero Center, Federal Reserve Bank, Pacific Gateway, Crocker National Bank Headquarters, 101 California Street, Pacific Building II--Apparel Mart, Pacific Lumber Building, 150 Spear Street, Levi's Plaza, United Airlines (YBC).

[2]Buildings approved (with EIR certification) include: Bank of America Data Center II, Daon Building, 456 Montgomery Street, 315 Howard Street, 775 Market (YBC), Pacific Building III Apparel Mart, 25 Jessie, 5 Fremont

[3]Buildings proposed (under EIR review) include: One Sansome Street, 101 Mission, 101 Montgomery, Marathon Building, SF Federal, Bank of Canton, 240 Montgomery, 275 Steuart, 601 Market, Howard & Spear, 145 Main (Main & Spear) 115-135 Main, Federal Office Building.

Sources: Department of City Planning, "Major Office Buildings Constructed in Downtown San Francisco, 1945-1977".

B. Sahm, Assistant Environmental Review Officer, Department of City Planning, Office of Environmental Review, personal communication, 3 April, 1981.

figure 43 OFFICE BUILDING PLAZAS

Source: John M. Sanger Associates Inc, field survey (WITHIN 2 BLOCKS OF SITE)

LEGEND

A	Bank of America Building Plaza	54,900sq ft
B	Continental Insurance Building Plaza	2,200sq ft
C	Mechanics Plaza	7,000sq ft
D	Crown Zellerbach Plaza	21,500sq ft
E	Crocker Plaza	10,600sq ft
F	595 Market Building Plaza	1,500sq ft
G	Standard Oil Building Garden Plaza	6,700sq ft
		104,400sq ft

above a height of 150 feet; and the length would be 168 feet, 2 feet less than the 170 feet allowable.

The basic floor area ratio (FAR) of 14:1 for the project site under the C-3-0 classification would allow 474,000 gross square feet of building area, exclusive of bonuses. Under the provisions of Section 126 of the City Planning Code, applicable to this project,[1] the basic floor area allowed can be increased by floor area bonuses for rapid transit access, multiple building entrances, sidewalk widening, a shortened walking distance, plaza and side setback. A bonus floor area of 253,800 gross square feet is claimed for these features. (See page 11 for a description of the location of these features and Appendix E, Table E-1, Figures E-1, E-2 and E-3 for bonus floor area calculations.) The total gross floor area proposed is consistent with this allowed bonus.

D. TRANSPORTATION

1. Transportation Impacts During Project Construction

Depending on an on-site meeting between the project contractor and City officials prior to commencement of work, one street lane and the sidewalk along Sutter Street immediately adjacent to the project site may be closed for the duration of the two-year excavation and construction period. Temporary disruption of the Sansome Street sidewalk would also occur for one week prior to demolition while the existing facade facing Sansome Street is stabilized. Pedestrians using the Sansome Street

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[1]The project is exempt from the Interim Downtown Controls which removed the application of Section 126 of the Planning Code in the C-3-0 Downtown Zoning District because a preliminary draft environmental impact report was filed before 3 January 1980.

sidewalk would be temporarily re-routed around the construction activity. The only other project within 6 blocks on Sutter Street is Crocker Center which also has required the closure of one traffic lane.

Closure of the north traffic lane on Sutter Street would reduce the street to three lanes, 29 feet wide, resulting in a 32% increase in its volume/capacity ratio, but it would remain at Level of Service A.[1] During the non-peak periods, on-street parking in the south lane would reduce the number of traffic lanes to two. Since Sutter Street also serves as the terminal and bus stop for the #1, #2, #3, #4 and #45 MUNI lines, MUNI service may be disrupted, unless on-street parking is eliminated. The bus stop on Sutter Street at Sansome Street may have to be removed and the terminal relocated to Sutter Street at Montgomery Street pending an on-site inspection by MUNI officials.[2] MUNI patrons using this stop would be required to walk to the new boarding site. If the Sutter Street sidewalk were closed during project construction, congestion on neighboring sidewalks would increase as users shifted to other routes.

Truck traffic during the construction period would increase traffic on streets adjacent to the site. Trucks would enter the site from the freeway via Main Street to Market Street and then to Sutter Street. Trucks would exit from Sutter Street, to Montgomery Street, to Market Street, to New Montgomery Street, to Howard Street and 4th Street to the freeway. Demolition and excavation activity would generate 2900 truck movements over a 4-month period or an average of 36 per day.

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[1]See Appendix F, p. 294, and note to Table 8, p. 102.

[2]F. Bauer, Charter Service Manager, San Francisco Municipal Railway, telephone communication, 5 November 1980.

Construction activity would generate 6000 truck movements for the delivery of construction materials over a 20-month period,

or an average of 15 per day.[1] Truck movements during the a.m. peak period could increase traffic congestion and cause a deterioration in MUNI service by reducing the number of available traffic lanes unless on-street delivery truck loading is eliminated.[2].

Installation of utilities, such as telephone, water, sewer and electrical lines could further disrupt traffic on an intermittent basis along Sutter Street. However, these activities would usually take place during the off-peak hours or at night.

2. Estimated Travel Demand

The proposed project is estimated to generate 11,355 daily person-trips.[3] Approximately 2200 trips are expected to be taken during the p.m. peak hour, of which 90% would consist of trips home by employees.[4] Table 6 summarizes all trips estimated to be generated by the proposed project by trip purpose, mode and time of travel.[5] Cumulative downtown development under construction or proposed by 1983 would generate 24,630 peak hour person-trips, with the proposed

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[1]T. Ray, Swinerton & Walberg Company, letter communication, 17 October 1980.

[2]Special metered parking for delivery truck loading is available along the entire length of the south side of Sutter Street from 7:00 a.m. to 4:00 p.m and along portions of the north side.

[3]See Appendix F, Table F-1, page 280 for a description of the trip generation factors used to derive the daily person trips.

[4]Impacts are overstated by about 12% since no deduction is made for current trip generation at the site.

[5]See Appendix F, Tables F-1 - F-7, pages 280-287 for a complete description of the methodology and calculations used in estimating travel demand.

TABLE 6

ESTIMATED TRAVEL DEMAND GENERATED BY THE PROPOSED ONE SANSOME PROJECT

	P.M. PEAK HOUR			AVERAGE WEEKDAY		
MODE	WORK TRIPS	NON-WORK TRIPS	TOTAL	WORK TRIPS	NON-WORK TRIPS	TOTAL
AUTO:						
S.F. CBD					680	680
S.F. Remainder	255	30	285	685	1025	1710
S.F. TOTAL	255	30	285	685	1705	2390
East Bay	175	20	195	500	275	775
Peninsula	160	15	175	435	270	705
North Bay	125	10	135	315	65	380
AUTO TOTAL	715	75	790	1935	2315	4250
TRANSIT						
MUNI	575	60	635			
BART	300	30	330			
AC Transit	165	20	185			
SAMTRANS	30	5	35			
SPRR	85	10	95			
GGT Buses	95	10	105			
GGT Ferry	30	5	35			
TRANSIT TOTAL	1280	140	1420	4495	1770	6265
OTHER: (Incl. Pedestrians)	50	5	54	190	1095	1285
TOTAL, with MUNI Transfers	2045	220	2265	6620	5180	11,800
TOTAL, without MUNI Transfers	1985	210	2195	6240	5115	11,355

Source: John M. Sanger Associates Inc. See Appendix F, Tables F-1 to F-7 for methodology and calculations. Totals may not add due to rounding.

project accounting for 9% of the total. (See Appendix F, Table F-8, page 289 for a list of projects considered.)

3. Transit Impacts

a. Muni

There are 43 Muni lines serving the downtown area; 38 pass within 2000 feet of the proposed project during the p.m. peak hour. These 38 lines have a combined p.m. peak hour capacity of 31,610 passengers, an estimated current ridership of 25,750 passengers, and a projected ridership of 32,210, (including the proposed project), an increase of 25%.[1] The proposed project would add 630 trips or about 10% of the additional 6,460 trips projected on these lines, equal to a 2.5% increase in Muni p.m. peak hour travel on the same lines. Without expanded capacity, 21 of the 38 lines would be operating in excess of recommended maximum capacities, at load factors[2] of 1.0 or greater, by 1983 with or without the proposed project. With the proposed project, two additional lines would be operating in excess of capacity.[3] The Muni 5-Year Plan, 1979-1984 projects a 26% increase in outbound p.m. peak hour capacity by 1984.[4] Some of

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[1]San Francisco Department of City Planning, Guidelines for Environmental Evaluation: Transportation Impacts, June 1980, revised October 1980. See Appendix F, p. 278 for a complete description of the methodology and calculations used in assessing transit impacts.

[2]Load factor is the estimated ridership divided by the recommended maximum seating capacity. Maximum recommended capacity (1.5 x number of seats) typically exceeds seating capacity to account for standees.

[3]See Appendix F, Table F-21, page 314.

[4]San Francisco Municipal Railway, 5-Year Plan, 1979-1984, 3 April 1979, page 155. This figure includes all 43 lines serving the downtown area.

the steps developed by MUNI to increase capacity have begun; the 1980 existing capacity reflects 50% of the total capacity

increase.[1] The remaining increases will be dependent on implementation of the Muni 5-Year Plan according to schedule.

As a result of limited availability of General Fund support and expected Federal funding reductions, MUNI may be unable to fund the proposed capacity increases or provide maintenance services for existing facilities.[2] If capacity is not increased, MUNI will not be able to accommodate the equivalent of 370 peak hour trips generated by the proposed project and the equivalent of 1480 trips generated by cumulative downtown development (including the project). If new funding sources are unavailable to finance expanded capacity, MUNI fares would have to increase at a rate in excess of that required to meet inflation of costs and State farebox requirements. Higher fares would result in some additional persons switching to automobiles. In addition, without expanded capacity, secondary effects could be expected such as shifts to other travel times or relocation of employers. Increased auto and pedestrian traffic would add to street congestion and could result in slowing down of MUNI operations, further increasing costs and encouraging others to shift to automobile use.

b. BART

Passengers on the Bay Area Rapid Transit System (BART) are estimated at 17,400 during the eastbound and westbound p.m. peak commute from downtown San Francisco.[3] At a standard of

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[1] S. Chelone, Transit Planner I, San Francisco Municipal Railway, telephone communication, 10 November 1980.

[2] San Francisco Municipal Railway 5-Year Plan, 1981-86, June 23, 1981, pp. 3, 12, 13, 22, 111-121.

[3] M. Birkenthal, Transit Analyst, Bay Area Rapid Transit District, telephone communication, 14 November, 1980.

130% of seating capacity, 20,030 passengers can be accommodated, leaving a reserve for 1,980 passengers. BART has increased its eastbound maximum recommended capacity to 11,800 by "closing headways", that is, operating with an average 3.75 minute interval between trains. No further capacity increases are expected until 1985, when the supply of cars will increase.

Cumulative downtown development would increase ridership by 3730 to 21,780 during the p.m. peak hour, with 13,630 traveling eastbound through the Transbay Tube. At existing maximum recommended capacity, BART would operate at a 1.16 load factor (or 150% of seated capacity) during the p.m. peak hour in the eastbound direction. At this load factor, some of

the 16 eastbound trains in operation at the p.m. peak hour would operate under crush conditions, with passenger delays resulting from waits for less crowded trains and with possible shifts to other modes, including AC Transit and automobiles. The proposed One Sansome project would account for 330 trips, or 9% of the cumulative increase.

c. A.C. Transit

AC Transit operates 173 buses from the San Francisco Transbay Terminal to the East Bay during the p.m. peak hour. With an average capacity of 50 seats per vehicle (including articulated coaches) and a standard maximum capacity of 125% of seating capacity, 10,800 passengers can be accommodated. Approximately 7,800 passengers are currently being served during the p.m. peak hour at a load factor of 0.72.[1]

By 1983, cumulative downtown development would account for 2,080 additional trips during the p.m. peak hour for a total of 9900 passengers. Without service reductions or an increase in the number of additional buses, the estimated load factor would be 0.92, or 8% less than standard maximum capacity. At this rate, some passengers would face delays while waiting for less crowded buses, and some might switch to other modes of transportation. The proposed One Sansome project would account for 180 trips, or 9% of the additional demand.

[1]T. Reynolds, AC Transit, telephone communication, 10 November 1980 and 12 November 1980.

d. SAMTRANS

Current SAMTRANS operations include 21 buses with a total capacity of 1360 passengers leaving the downtown area during the p.m. peak hour.[1] Load factors are about 0.63 of standard maximum capacity, based on 125% of seating capacity.

Cumulative downtown development would increase ridership by 1983 from 850 to 1,230. The estimated 1983 load factor would be 0.90. The proposed project would account for 35 trips, or 9% of the estimated increase.

e. Southern Pacific Railroad

Southern Pacific currently handles 5,500 seated passengers during the p.m. peak hour.[2] With a projected increase of 1,100 by 1983 due to cumulative downtown development, the number of p.m. peak hour passengers would increase to 6,600. The proposed project's share would be 95 trips, or 9%. At the current peak hour seated capacity of 6,660, the 1983 projected load factor would be at 0.99 of seated capacity. By late 1983 Southern Pacific hopes to increase capacity 50%; this would correspond to an increase in p.m. peak hour service to 10,000 seats and a projected load factor of 0.66 of seated capacity.

On 1 July 1980, Southern Pacific and CalTrans entered into an agreement whereby CalTrans would subsidize the operating deficit incurred by Southern Pacific in its commuter service. The 1980 annual subsidy per trip is approximately

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[1]J. Dehart, Assistant Transportation Planner, San Mateo Transit District, telephone communication, 17 November 1980.

[2]G. Pera, Manager, Commute Services, Southern Pacific Railroad, telephone communication, 13 November 1980.

$2.00. The projected 1983 increase in ridership would increase the subsidies by an additional $2,200. The proposed One Sansome project would account for $190, or 9% of the additional cost.

f. Golden Gate Bridge Highway and Transportation District

At present buses serving Marin County are operating near maximum standard capacity: 9,000 passengers, with a load factor of 1.00, based on 122% of seated capacity.[1] An additional 21 bus trips would be needed to accommodate a projected 1983 increase of 1160 passengers due to cumulative downtown development. However, financial and budgetary constraints preclude expansion of the bus fleet in the near future. A short-term solution to the capacity overflow could be a reallocation of the current buses so that larger buses would serve the San Francisco-Marin County routes. Other alternatives could be passengers switching to other modes (i.e., automobile or ferry) or extension of the p.m. peak period commute, with buses at capacity for longer periods and some passengers waiting for less crowded buses.

The Golden Gate ferries currently handle up to 1100 passengers during the p.m. peak hour commute. Two ferries, each with a maximum capacity of 735, serve p.m. peak hour commuters. With an estimated increase of 350 due to new downtown development, the load factor of the Golden Gate ferries during the p.m. peak hour would be 0.99.

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[1] P. Dyson, Golden Gate Bridge Highway and Transportation District, telephone communication, 12 November 1980.

The proposed One Sansome project would generate 100 trips or 9% of the increase on the buses, and 40 trips or 11% of the increase on the ferries. If the Golden Gate Ferries were closed, 40 passenger work-trips generated by the proposed project would switch to either automobiles or other public transit.

g. Summary of Transit Impacts

Table 7 summarizes the impacts of cumulative new development, including the proposed project, on local and regional transit systems, based on planned capacity increases.

4. Traffic Impacts

The proposed project would generate approximately 3,000 daily automobile trips, of which an estimated 565 would occur during the p.m. peak hour. Cumulative downtown development, including the project, would generate approximately 46,700 daily automobile trips to and from downtown San Francisco.[1] Approximately 8,900 of these trips would be made during the p.m. peak hour. The project would account for 6% of projected automobile trips resulting from all new downtown development. If MUNI is unable to expand its capacity as expected, the number of p.m. peak hour automobile trips attributable to the proposed project could increase by the equivalent of 265 vehicle trips. The number of p.m. peak hour automobile trips attributable to cumulative downtown development could increase

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[1]The number of daily and p.m. peak hour trips from new development may be overstated due to the inclusion of 4 projects not listed in the revised list of projects to be completed 1981-1983, dated October 1980, provided by the San Francisco Department of City Planning. See Appendix F, Table F-8, p. 289 for a list of projects, and Table F-9, p. 292 for the number of automobile person trips.

by the equivalent of 23%.

The increase in automobile trips would affect traffic, land use (with regard to the demand for parking), and local and regional air quality. Traffic impacts would result from an increase in the level of flow on streets entering and leaving the downtown and on freeways connecting to other counties. The specific streets affected would depend on the location of parking facilities and the residences of employees.

TABLE 7

PROJECTED CUMULATIVE IMPACTS ON TRANSIT SYSTEMS (P.M. PEAK HOUR)

	1980 (Current)			1983 (Projected)[1]		
Mode	Ridership	Maximum Recommended Capacity	Overall Weighted Load Factor[4]	Ridership	Maximum Recommended Capacity	Overall Weighted Load Factor[4]
MUNI[2]	28,480	35,730	0.80	35,630	39,840	0.89
BART[3]	17,400	20,475	0.85	21,130	20,475	1.03
AC Transit	7,800	10,800	0.72	9,900	10,800	0.92
SAMTRANS	860	1,360	0.63	1,230	1,360	0.90
SPRR	5,500	6,660	0.82	6,600	6,660	0.99
GGT Bus	9,000	9,000	1.00	10,060	9,000	1.12
GGT Ferry	1,100	1,470	0.75	1,450	1,470	0.99

[1] 1983 projections assume planned increases in transit system capacities based on telephone communication, 10 November 1980, S. Chelone, Transit Planner I, San Francisco, Municipal Railway.

[2] Projected impacts on a line-by-line basis are shown in Appendix F, Table F-21, page 314. MUNI figures refer to all 43 lines serving the downtown area.

[3] Includes both eastbound and westbound passengers.

[4] Ridership on system or relevant lines divided by aggregate maximum recommended capacity.

Source: John M. Sanger Associates Inc

Streets adjacent to the site are currently functioning at less than half of capacity and at Level of Service A.[1] A comparison of 1983 traffic volumes with and without the project indicates that the proposed project would increase street traffic by 11% to 22% of capacity under worst-case conditions (Table 8). Westbound traffic on Market Street approaching Sansome Street would increase from 43% of capacity without the project to 54% with the project; traffic on Sutter Street approaching Montgomery Street would increase from 41% to 54% of street capacity with the project; southbound traffic on Sansome Street approaching Sutter Street from 34% to 56%; and northbound traffic on Sansome Street approaching Bush Street from 40% to 51%. **Traffic on streets surrounding the project site could increase by an additional 9% to 25% if MUNI service is not increased as planned.** However, all approaches listed above would remain at Level of Service A with or without the project.

The redesign of Sansome Street between Sutter and Bush, if pursued by the City, would continue to permit access by transit with closure only to private automobiles. Vehicular traffic could increase collectively on other streets in the vicinity by 11% to 22% if Sansome Street were closed. Although identified in the Center City Circulation Program, this measure remains under consideration with implementation depending on initiation by the City. The project sponsor is not actively seeking the implementation of this measure, but would cooperate, if pursued by the City as indicated on page 146 (City of San Francisco Transportation Policy Group, Center City Transportation

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[1]Traffic counts conducted by John M. Sanger Associates Inc, 4 October 1978. Observed 1978 traffic volumes for Sansome and Sutter Streets adjacent to the project site were adjusted to 1980 levels by an expansion factor of 1.8% per year. Appendix F., p. 278 describes the methodology used for deriving estimates of traffic volumes and street capacities.

Program, Preliminary Improvement Program, December 1979, Project Number 69).

The cumulative traffic impact from new development would increase the congestion of the San Francisco-Oakland Bay Bridge (Interstate 80) and the James Lick-Bayshore Freeway (U.S. 101). Because these freeways already are at capacity during the p.m. peak hour, more vehicles on these routes would increase the length of the p.m. peak period commute. At an assumed rate of 1.4 passengers per vehicle, an additional 1,720 vehicles destined for the East Bay and 1,390 vehicles destined for the South Bay are projected. The proposed project would account for 6% of the cumulative increase.

If the Embarcadero Freeway were removed, the Clay and Washington Street ramps would also be removed. In that case, traffic now using the Embarcadero Freeway and the ramps would either use the improved Embarcadero roadway proposed to replace the Embarcadero Freeway to ramps south of Market Street to reach the Bay Bridge and U.S. 101 or would use those streets shown on Figure 27 to reach on-ramps at Main and Beale and Harrison and Bryant at Fourth Street. Removal of the Embarcadero Freeway might also result in a change in parking preferences, shifting a demand for parking from north of Market Street to south of Market Street closer to the remaining freeway ramps, or increased transit use. Projected traffic volumes around the site of the proposed project, estimated in Table 8, page 102 and as described in Appendix F, could change due to shifts in the choice of parking locations. However, streets around the site would remain at Level of Service A.

TABLE 8
PROJECTED TRAFFIC VOLUMES, P.M. PEAK HOUR

		1980			1983 (Without Project)			1983 (With Project)		
Street	Capacity	Volume	% of Capacity	Level of Service*	Volume	% of Capacity	Level of Service*	Volume	% of Capacity	Level of Service*
Market/ Sutter (Westbound)	1,427	490	34%	A	618	43%	A	768	54%	A
Sutter (Westbound)	1,313	424	32%	A	354	41%	A	709	54%	A
Sansome (Northbound)	439	156	36%	A	197	40%	A	247	56%	A
Sansome (Southbound)	342	93	27%	A	117	34%	A	192	56%	A

Source: John M. Sanger Associates Inc; See Appendix F, Page 278, and Note 1, p. 101.

*Descriptions of Levels of Service for street intersections approaches as described in Highway Capacity Manual, Special Report No. 87, op.cit, p. 131, are as follows:

Level of Service	Description
A	Approach appears quite open, turning movements easily made, and nearly all drivers find freedom of operation.
B	Drivers begin to feel somewhat restricted within platoons of vehicles.
C	Drivers may have to wait through more than one signal indication and back-ups may develop behind turning vehicles.
D	Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues.
E	Capacity occurs; there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several cycles).
F	Jammed conditions; back-ups from locations downstream or on cross street may restrict or prevent movement of vehicles out of the approach.

The current number of daily person trips by vanpools in the Bay Area is estimated at 3300.[1] If it is assumed that all trips are destined for San Francisco, the ratio of vanpoolers to employment[2] would be roughly 1.2%; however, this probably overstates the number of San Francisco-bound trips, as some of these trips can be expected to take place outside of San Francisco. Based on 1.2% of employment, the number of daily person trips by vanpools projected from cumulative downtown development would be 400. Approximately 36 trips, or 9%, would be generated by the proposed project. Since vanpooling is a form of commuting developed in response to higher fuel and operating costs, the number of vanpoolers could be expected to increase if shortages of fuel and rising costs of commuting continue.

5. Service and Delivery Vehicle Traffic

The current uses of the project site (office, banking and retail) are estimated to generate an average of 37 truck visits per day.[3] As there are no available off-street loading facilities, all service vehicles must find parking on the street. This is equivalent to use of two on-street loading spaces throughout the day, at 25 minutes per truck. The project would generate approximately 155 truck visits per

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[1]F. Harris, Operations Manager, Rides for Bay Area Commuters, Inc., telephone communication, 23 October 1980.

[2]San Francisco Planning and Urban Renewal Association, Detailed Findings: Impact of Intensive Highrise Development in San Francisco, 1975, p.58.

[3]Estimates of the current and projected service and delivery vehicles serving the project site are based on existing and planned square footages by use. Appendix F, Table F-10, p. 293, describes the procedure used in calculating changes in the number of service and delivery vehicles generated by the proposed project.

day. The loading facility designed to accommodate 2 large trucks and one small delivery vehicle simultaneously, as well as trash pick-up, would accommodate about 64 of the total service vehicles (not including garbage trucks) arriving during the day. The remaining 91 vehicles would have to find on-street parking, equivalent to the use of 4 on-street loading spaces throughout the day, an increase of 2 spaces over the current situation.

A worst-case assessment of truck visits to the project site was calculated using a peaking factor of 1.25.[1] Based on the estimates of current and projected truck visits, the number of peak hour deliveries would increase from 5 to 22 with the proposed project. The number of necessary on-street spaces would increase from 2 to 6 spaces to satisfy peak demand.

The increased number of on-street loading spaces required by the proposed project would decrease the number of loading spaces available for adjacent buildings. In addition, street blockage and traffic and transit disruption could occur if double-parking occurred because of a shortage in available curb space. The average number of truck movements per hour (14) would cause some pedestrian conflicts with users of the Sutter Street sidewalk adjacent to the project site, especially during the mid-day and p.m. peak period pedestrian flows.

6. <u>Parking Impacts</u>

No on-site parking would be provided by the project. The project would generate an estimated demand for 690 long-term and 205 short-term parking spaces downtown. If MUNI is unable to expand its capacity, 265 additional long-term parking spaces

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[1]See Appendix F, Table F-10, p. 293, note 3.

would be required as a result of increased automobile use. Table 9 displays the calculations of permanent and temporary parking demand from

TABLE 9

PROJECTED PARKING DEMAND GENERATED BY THE PROPOSED ONE SANSOME PROJECT

Permanent (Long-Term) Parking Demand	
Daily Auto Person-Trips	1935
Daily Auto Vehicle Trips @ 1.4 Persons/Vehicle	1380
(2 Vehicle Trip Ends Per Round Trip)	690
Long-Term Parking Space Demand (Turnover Rate of 1)	690
Temporary (Short-Term) Parking Demand	
Daily Auto Person Trips	2315
Daily Auto Vehicle Trips @ 1.4 Persons/Vehicle	1655
(2 Vehicle Trip Ends Per Round Trip)	825
Short-Term Parking Space Demand (Turnover Rate of 4)	205
Long-Term Parking Demand:	690
Short-Term Parking Demand:	205
Total Parking Demand from Project:	895

Source: John M. Sanger Associates Inc. See Table 6, p. 93 for calculations of estimated person-trips.

the project. Parking lots in the vicinity are currently operating at from 90% to over 100% of theoretical capacity.[1]

Projected long-term parking demand from both the proposed project and from cumulative downtown development would be about 9,800 spaces and, when combined with the current demand, would exceed the existing supply of parking spaces listed in Table 2 on page 53 by 8,200 to 8,600 spaces, depending on potential loss of existing spaces in Yerba Buena Center. Continued availability of this parking is dependent on the development potential of such sites for other uses. Office workers would probably have to park more than 4 blocks away from the site, and there would be new demand for parking on the fringe of the downtown office district. Certain sites under and south of U.S. 101 are intended for peripheral parking by the Department of City Planning.[2] There could also be increased parking in residential neighborhoods with good transit service to downtown. Many such neighborhoods have instituted preferential parking areas wherein only residents may park for longer than 2-4 hours. If MUNI is unable to expand capacity, 1,480 additional long-term parking spaces would be required by cumulative downtown development.

7. Pedestrian Access and Circulation

Pedestrian levels of service and impacts of the proposed project are assessed on the basis of worst-case conditions: all estimates of impacts are for conditions during peak 5-minute periods and platoon[3] flows (this condition may only be

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[1]Telephone survey of parking lots in downtown San Francisco by John M. Sanger Associates Inc, 3 October 1980.

[2]Department of City Planning, Guiding Downtown Development, May 1981, p. D-1, D-6.

[3]Platoon flow occurs when pedestrians bunch up and proceed in

experienced for a few seconds by a pedestrian).

Construction of the proposed building would result in a decline in the level of service on portions of the Sutter and Sansome Street sidewalks, especially west and north of the site where no increase in effective sidewalk width would occur.[4]

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groups along the sidewalk, which results in less room to maneuver, decreased speed, and a feeling of congestion.

[4]Effective Sidewalk Width: the portion of the sidewalk which is actually used for passage. Studies of pedestrian behavior have found that pedestrians tend to walk 1'-1.5' away from curbs and building faces.

During the mid-day 5-minute peak period, pedestrian volumes on Sutter and Sansome Street sidewalks immediately west and north of the site would reduce from current level of service C (impeded) to level D (constrained) on Sutter Street and level E (crowded) on Sansome Street sidewalks (see Figures 44 and 45).[1] The level of service on sidewalks adjacent to the project site would be the same or better, depending on the number of pedestrians who would choose to use the plaza and arcade for passage. Under platoon conditions, service would not change on the Sutter Street sidewalk, but level of service would decline to F on the Sansome Street sidewalk.

During the p.m. peak 5-minute period, average flows on the Sutter Street sidewalk immediately adjacent to the project would reduce the current level of service B to level C (Figures 46 and 47), and with platooning, level of service would decline to D, if pedestrians make no use of the sidewalk arcade. The Sansome Street sidewalk would have a level of service at E (crowded) during average flows, and level F (congested) during platoon flows.

On the Sutter Street sidewalk immediately adjacent to the site, sidewalk blockage now occurs as a result of pedestrians queuing for buses. If queuing were to increase as a result of the proposed project, and if pedestrians did not make use of the arcade to queue or to avoid the queue, the level of service would be lower than that projected west of the queue. With an effective sidewalk width of 5 feet instead of 12 feet due to the bus queue, average flow would decline to level of service F (congested) at the average peak 5-minute flow and to level G (jammed) during platoon flow. Use of the arcade would improve the level of service by providing more room for Sutter Street pedestrians.

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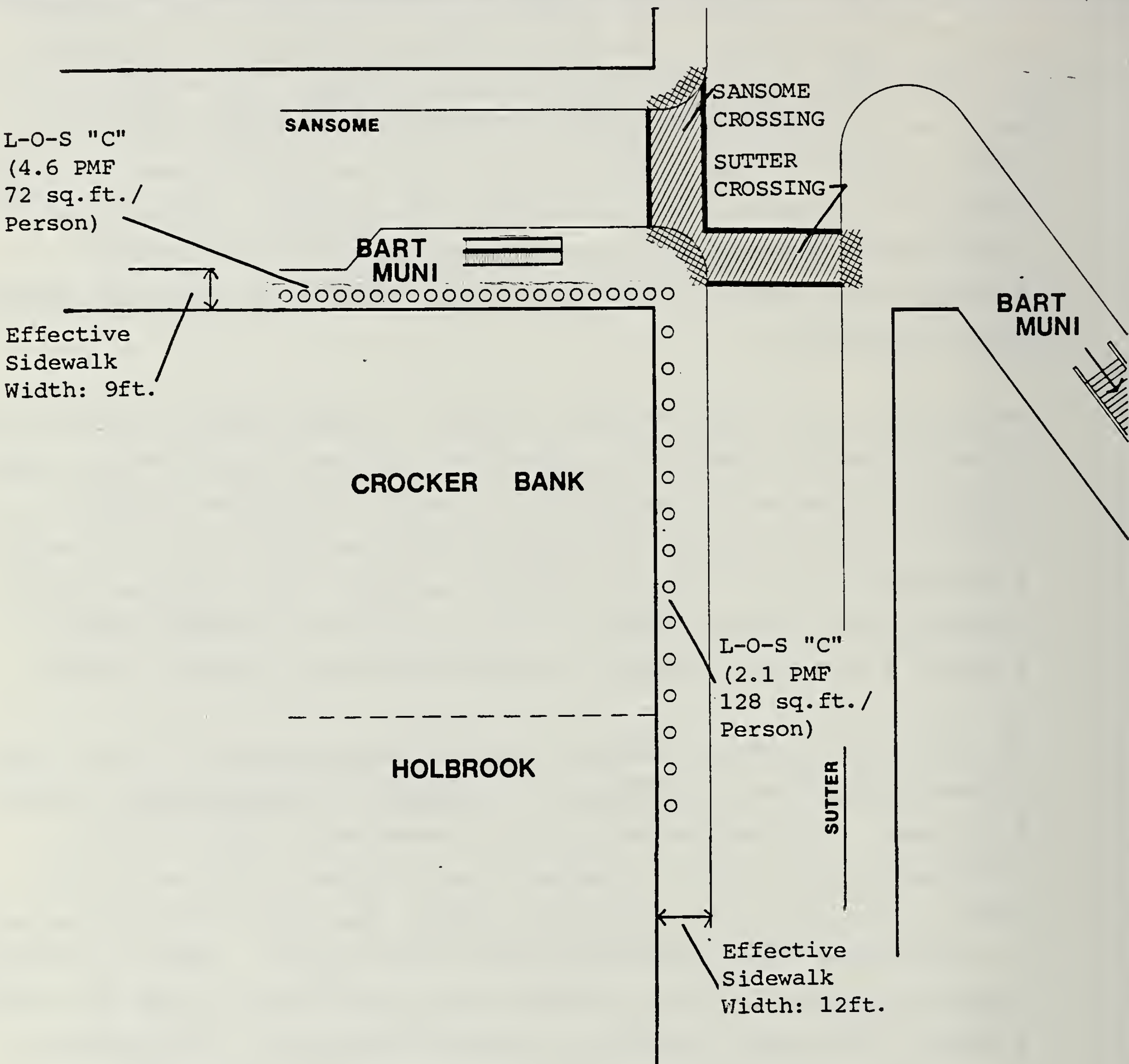
[1] For definitions of levels of service, See Appendix F, Table F-12, p. 297.

figure 44 EXISTING PEDESTRIAN FLOW

Source: John M. Sanger Associates Inc, Pedestrian Flow Survey, 11:30a.m.-1:30p.m., Wednesday, 18 September, 1980.

MID-DAY PEAK FLOW



LEGEND

ooooo	Pedestrian Flow
	Pedestrian Crosswalk
	Pedestrian Queue Reservoir
L-O-S	Level of Service
PMF	Pedestrians per Minute per Foot

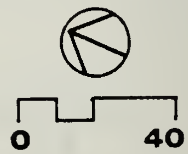
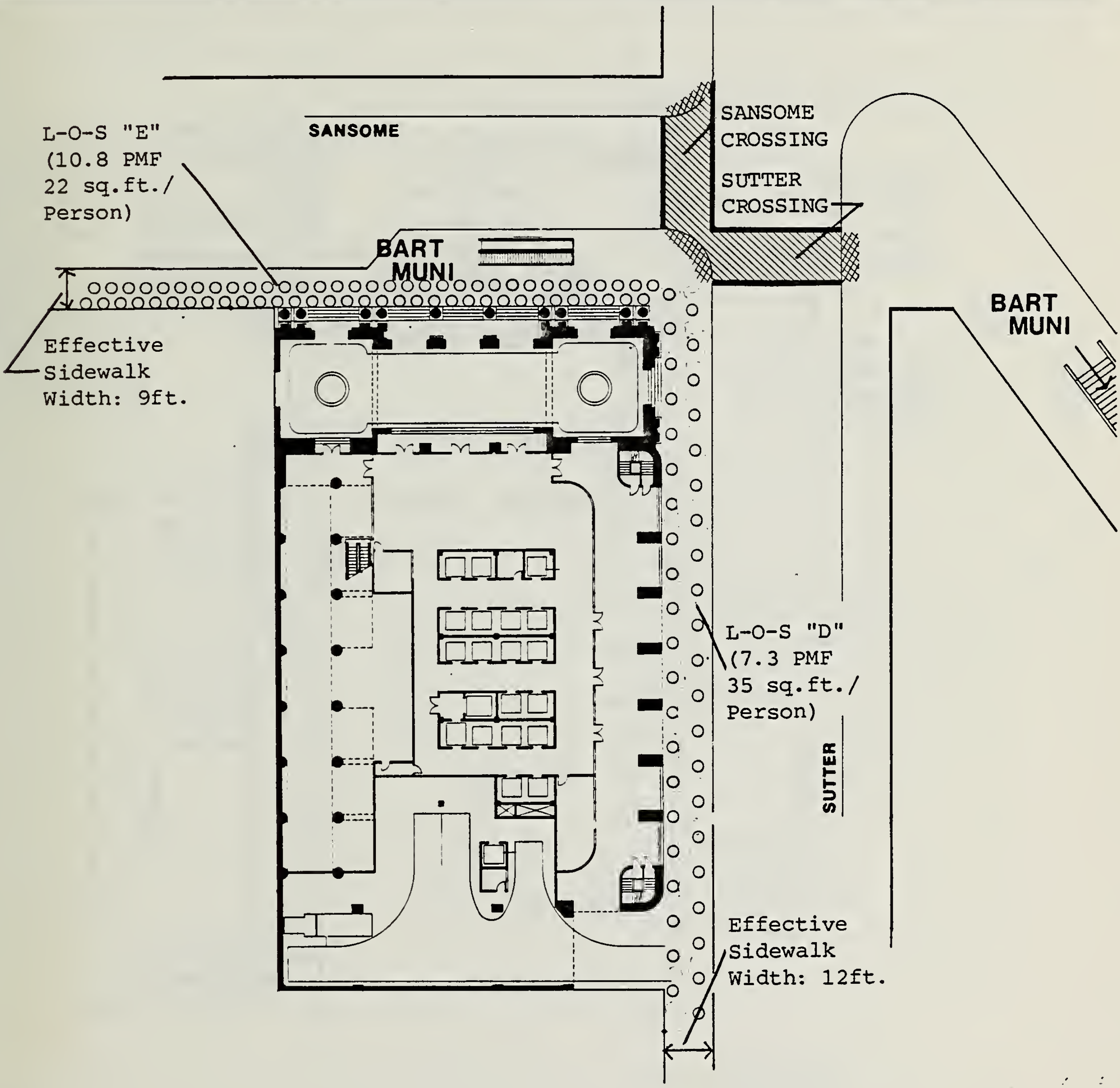


figure 45 PROJECTED PEDESTRIAN FLOW

Source: John M. Sanger Associates Inc

MID-DAY PEAK FLOW



LEGEND

ooooo	Pedestrian Flow
	Pedestrian Crosswalk
	Pedestrian Queue Reservoir
L-O-S	Level of Service
PMF	Pedestrians per Minute per Foot

figure 46 EXISTING PEDESTRIAN FLOW

Source: John M. Sanger Associates Inc, Pedestrian Flow Survey, 4:00p.m.-6:00p.m. Wednesday, 18 September, 1980.

AFTERNOON PEAK FLO

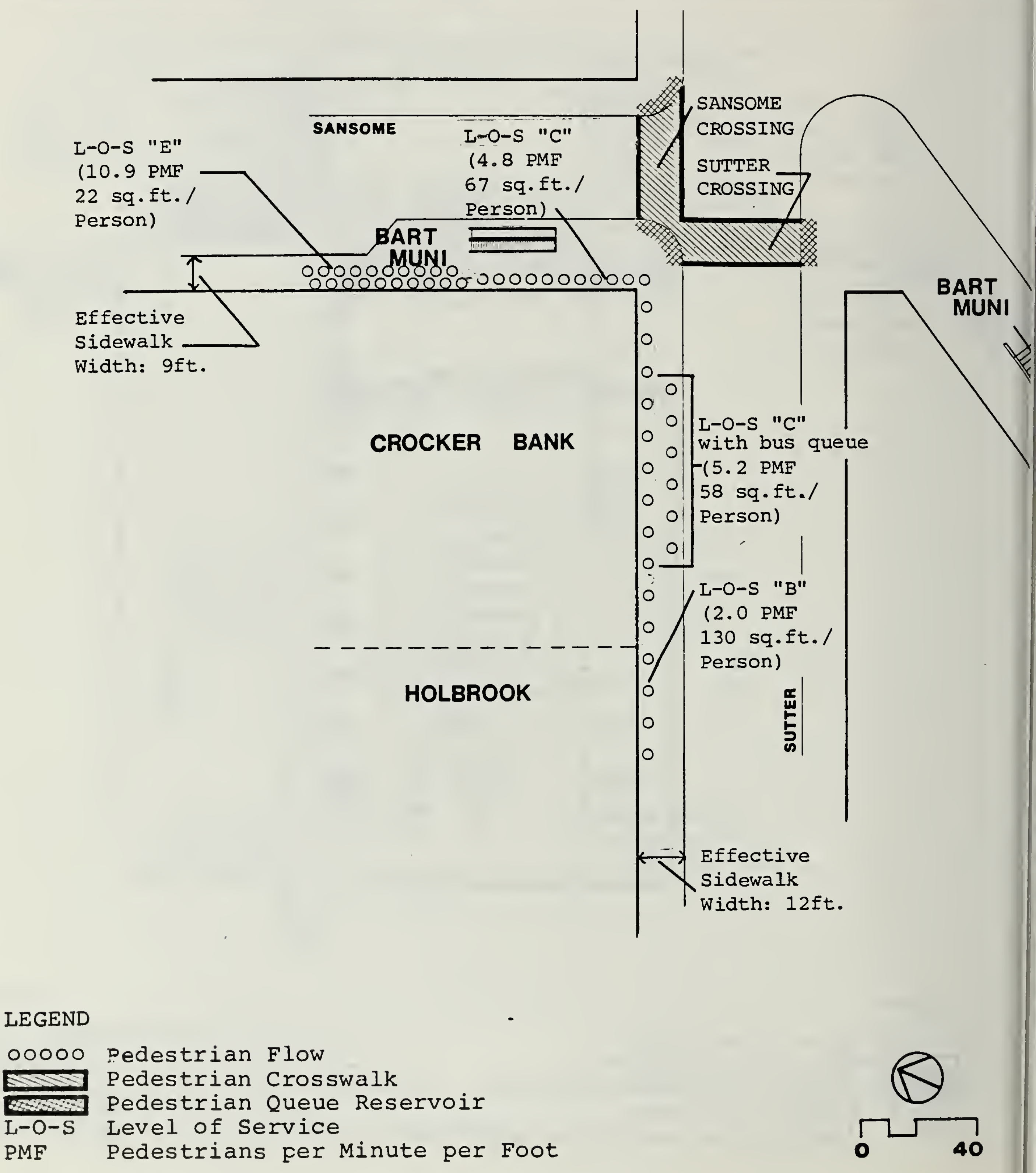
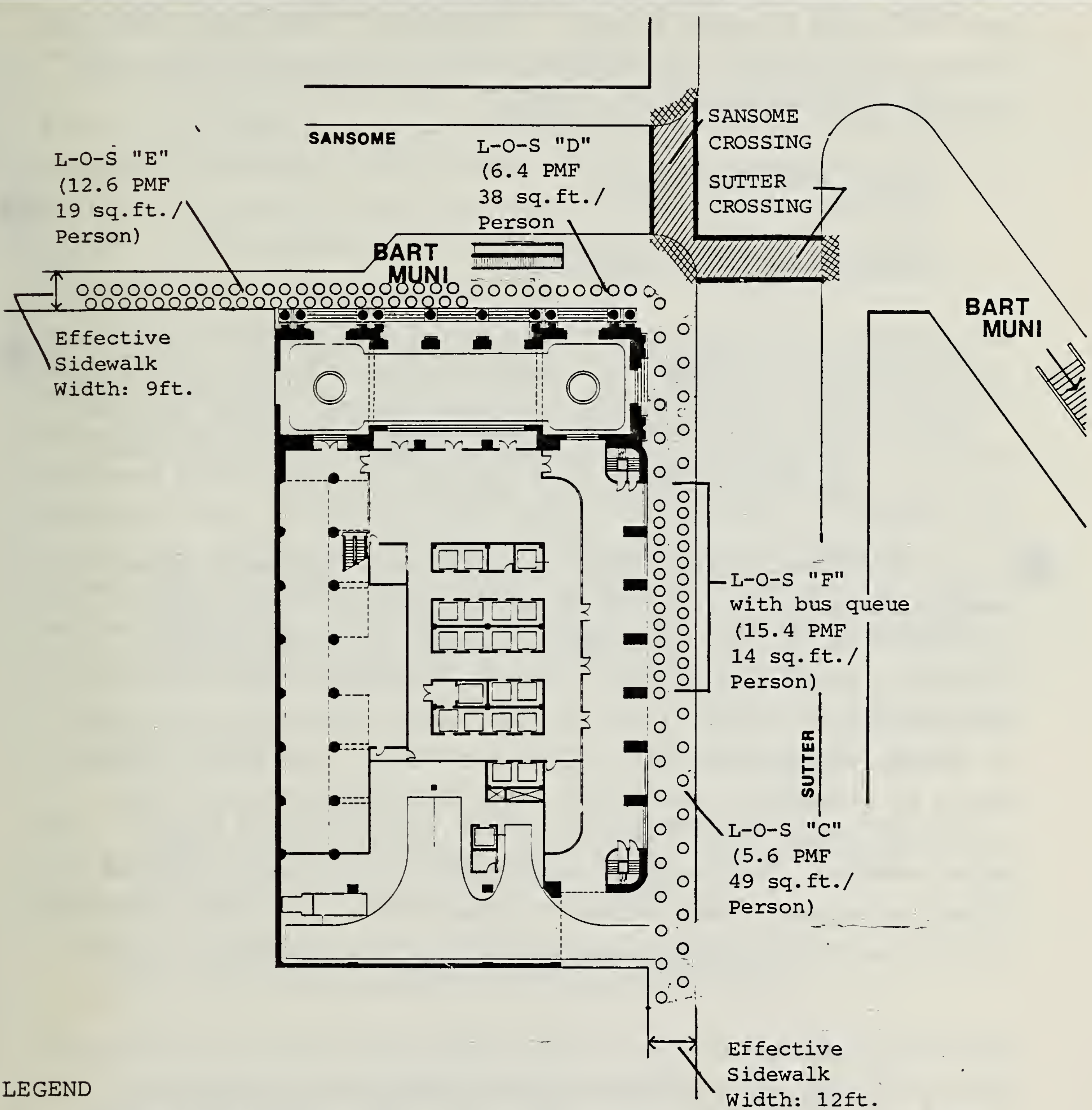


figure 47 PROJECTED PEDESTRIAN FLOW

Source: John M. Sanger Associates Inc

AFTERNOON PEAK FLOW



LEGEND

ooooo Pedestrian Flow
Pedestrian Crosswalk
Pedestrian Queue Reservoir
L-O-S Level of Service
PMF Pedestrians per Minute per Foot

Pedestrian volumes generated by the project would decrease the level of service at the Sutter and Sansome crosswalks from current level of service A to level B during both the mid-day and p.m. peak 5-minute period. In general, there would be less passing room within the crosswalks for intersecting flows and queuing reservoirs would be larger.

E. CLIMATE AND AIR QUALITY

1. Windspeed and Wind Direction

The changes the proposed building would make in wind directions and velocities at pedestrian level have been studied by the use of models in a wind tunnel to simulate natural winds near the ground.[1] Tests were conducted for northwest and west winds, the most common wind conditions in San Francisco.

During northwest winds, there would be an increase in wind speeds along the north side of Sutter Street, with winds remaining in the low to moderate category. Wind speeds elsewhere would not change. On the southwest corner of the Sansome-Sutter Street intersection, west winds would increase in speed from moderate to moderately high. Elsewhere, speeds would be changed no more than a few percentage points from existing speeds within the range of error for wind tunnel measurements. The newly created public entry court and the Crown Zellerbach Plaza across Sansome Street would be sheltered by the proposed building and would have low, turbulent winds.

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[1]The basis for this section and the complete test results are included Appendix G, p. 317. The test reported in this study was conducted on a previous project design in December 1978. The test results are considered reliable for the new proposed project design as indicated in a letter from Donald Ballanti, Consulting Meteorologist, 9 October 1980, Appendix G, page 316.

2. Shadow Pattern Analysis

Sun-shade diagrams were prepared for 1:00 p.m., a time when outdoor activity is at a peak, on the first day of each season. During winter the low angle of the sun results in almost all pedestrian areas near the project being shadowed by existing buildings. The project would have no effects on shadow. The project would have no effects on ground-level shadow. The proposed public entry court would be in shade. (Figure 48).

In the fall and spring the project would shade a 20-foot-wide strip across Sansome Street and at the southeast corner of the Bush-Sansome Street intersection. The northwest half of the proposed public entry court would be shaded, while the southeast half would be in sunlight (Figure 49). In summer, at 1 p.m. the project would shade a 70-foot strip of Sansome Street and a 20-foot strip along the western edge of the Crown Zellerbach Plaza. Only the southeast corner of the proposed public entry court would be in sunlight (Figure 50).

3. Air Quality

The proposed project would affect local air quality (dust) during construction and both local (carbon monoxide) and regional (ozone) air quality during occupancy.

a. Local Air Quality Impacts During Construction

Construction-related pollutants would include escaped dust from the site and heavy-duty diesel exhaust emissions along transportation corridors to the site resulting from approximately 8900 total truck movements during the 24 months of project construction.[1] Construction effects would be

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[1]See page 91.

similar to the pollution associated with other typical downtown highrise building construction projects.

figure 48 PROJECTED SHADOW PATTERNS

Source: Donald Ballanti, Consulting Meteorologist

WINTER 1PM

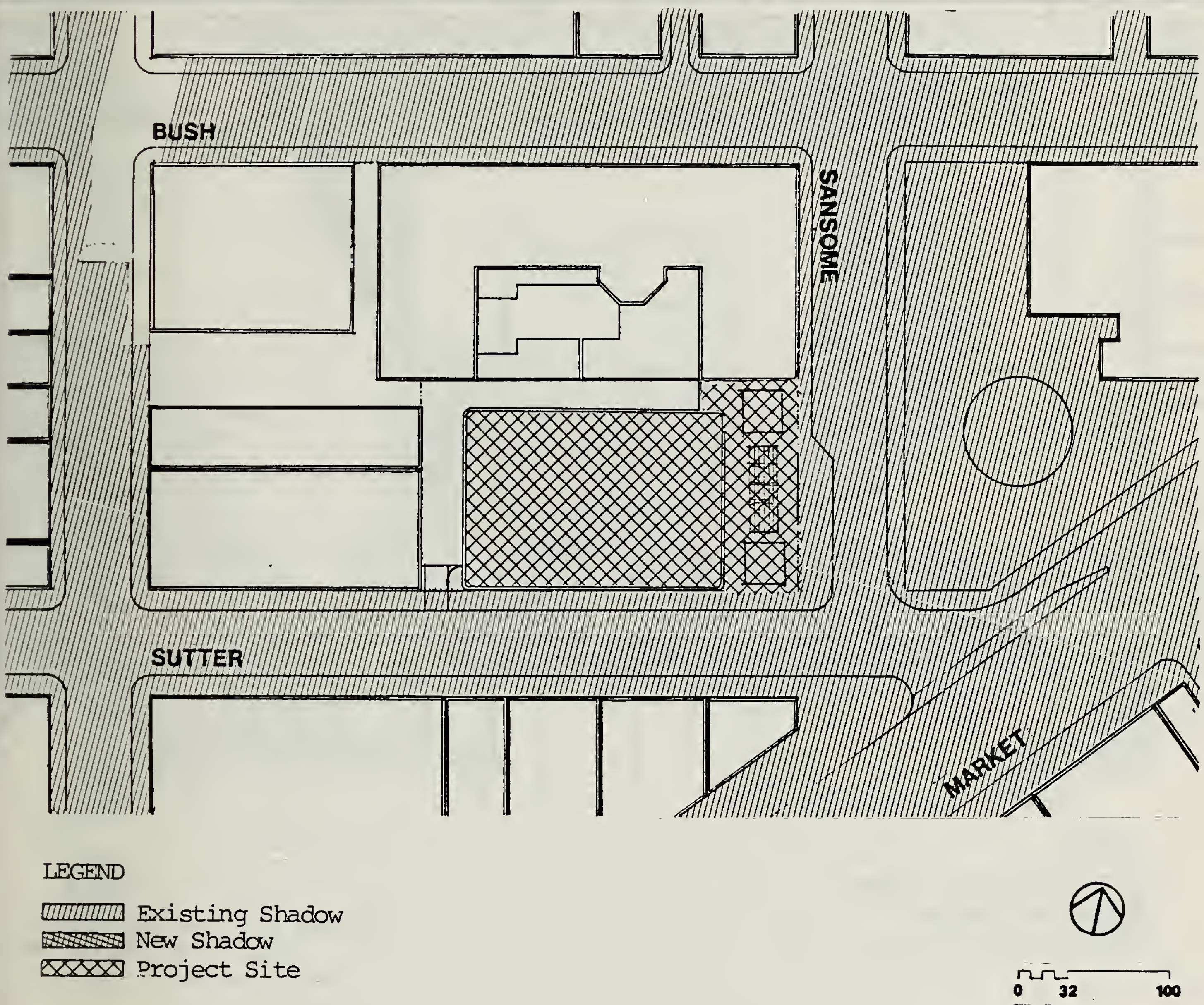
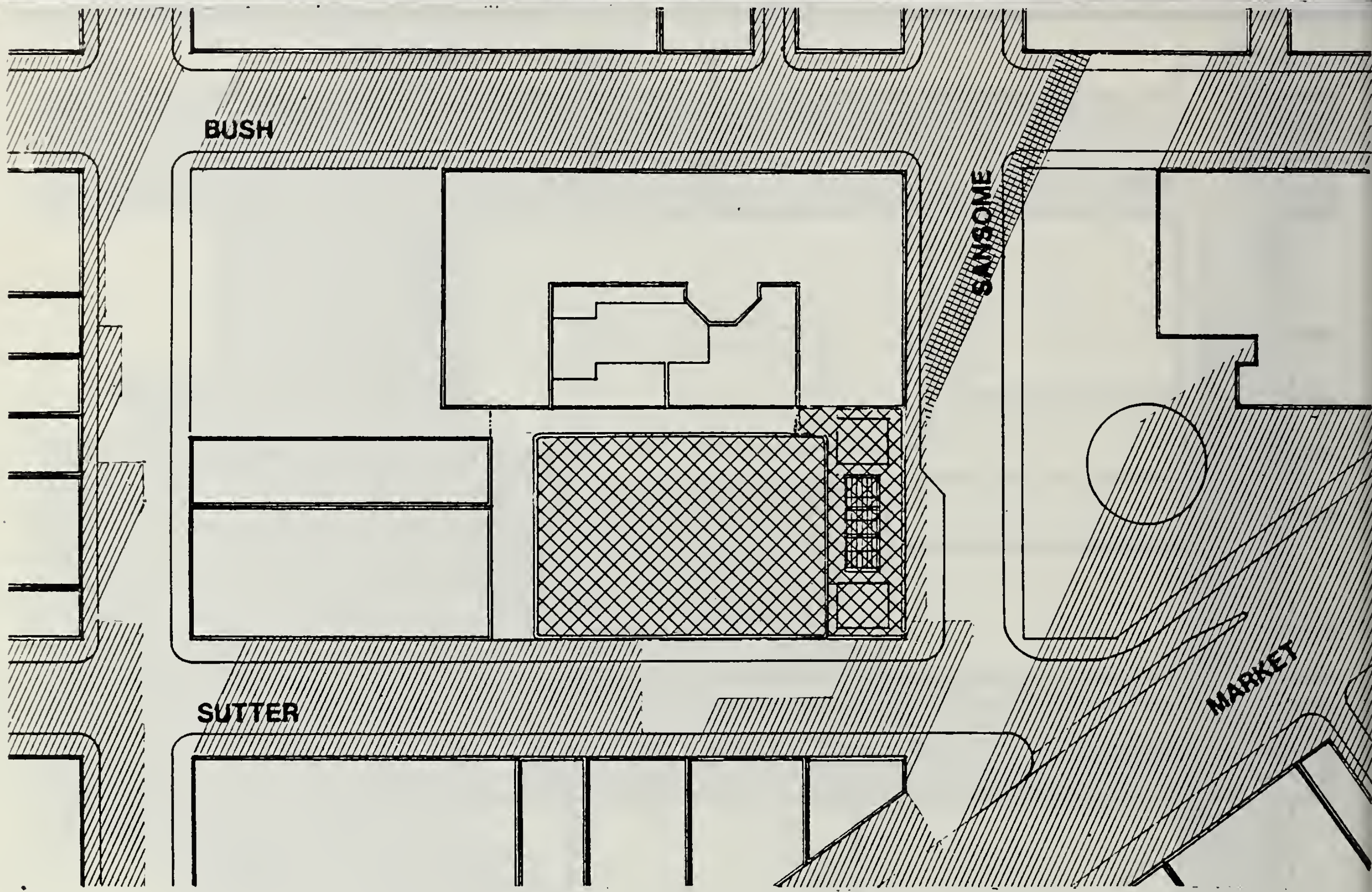


figure 49 PROJECTED SHADOW PATTERNS

Source: Donald Ballanti, Consulting Meteorologist SPRING/FALL 1PM



LEGEND

Existing Shadow
New Shadow
Project Site

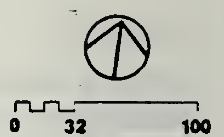
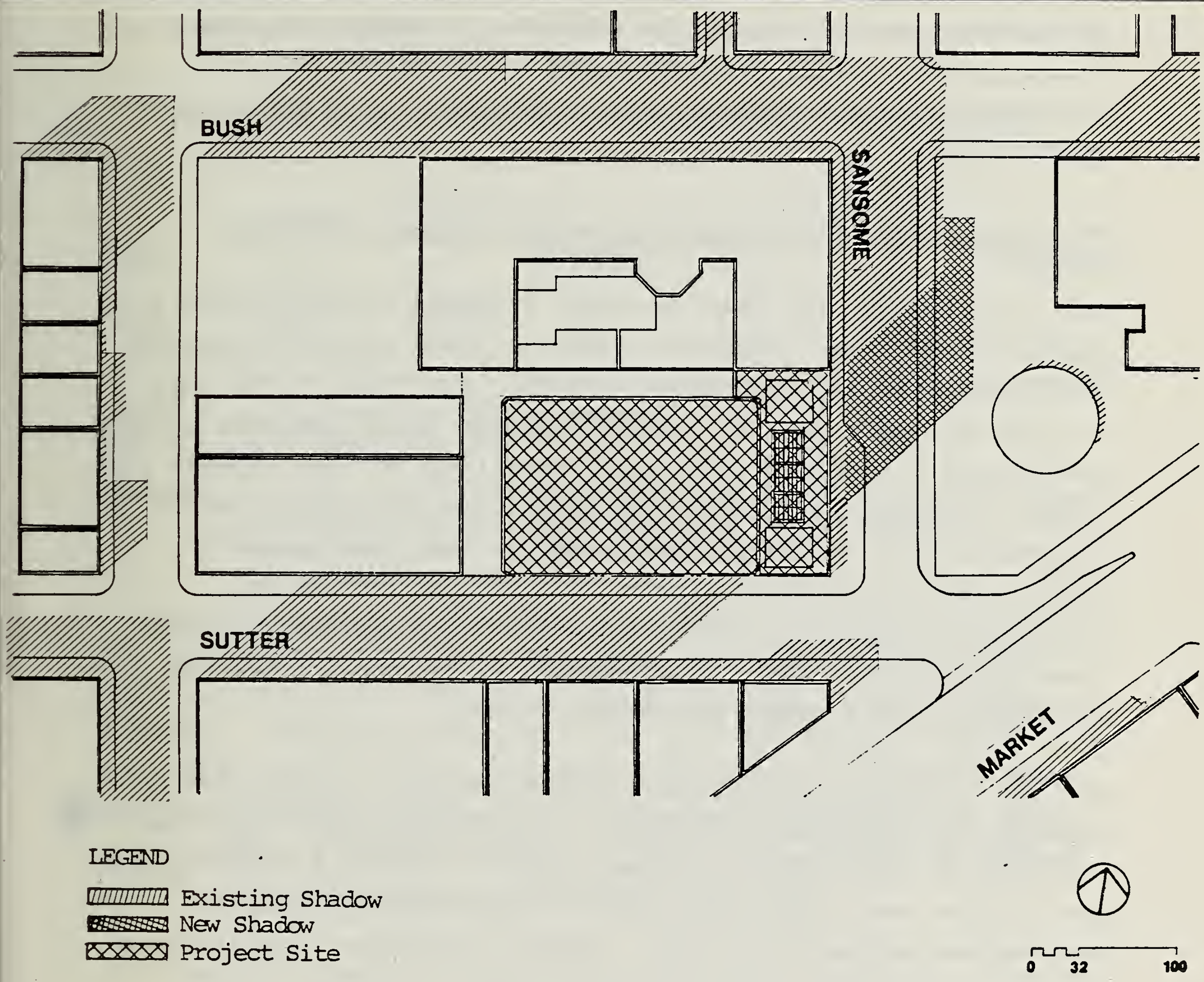


figure 50 **PROJECTED SHADOW PATTERNS**

Source: Donald Ballanti, Consulting Meteorologist SUMMER 1PM



An estimated 13,000 cubic yards of earth would be excavated during project construction.[1] If not controlled, this could result in the release of approximately 16.5 tons of suspended particulate matter during the estimated 2 months of project excavation.[2] During excavation and other phases of construction, dust control through watering is often required by the City.

b. Local Air Quality Impacts During Project Operation

Air quality near the site would be affected during project operation by carbon monoxide emissions from nearby automobile and bus movements. The commute traffic peak hour (5 to 6 p.m.) is also the peak hour of carbon monoxide concentrations because peak traffic involves more cars travelling at lower speeds with higher emissions. The project could affect carbon monoxide concentrations in the project area by: (1) generation of traffic on surrounding streets; (2) pickup and loading activities associated with the project, and slowing vehicles passing the site; and (3) alteration of microscale airflow affecting carbon monoxide concentration.

The building design does not provide for any on-site parking spaces, therefore most workers would probably park their cars in parking lots south of Market Street. The only direct impact on streets near the project would result from pick-ups, deliveries and service trips. Table 10 presents calculations

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[1] T. Ray, Swinerton and Walberg Company, letter communication, 17 October, 1980. This letter is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[2] U.S. Environmental Protection Agency, "AP-42: Compilation of Air Pollutant Emission Factors", updated July 1979, pp. 11.2.3-1,2. Calculation assumes density of excavated dirt to be 3000 lb/cu.yd.

of the average carbon monoxide concentration on Sutter Street in the year 1980 and 1985. The project would not cause violations of either the one-hour or the eight-hour standard in the immediate vicinity.

TABLE 10

PROJECTED CARBON MONOXIDE CONCENTRATIONS, SUTTER STREET

YEAR	ONE HOUR ug/m^3	ppm	Federal Standard	EIGHT HOUR ug/m^3	ppm	Federal Standard
1980	2243.4	1.96	35	342.3	0.30	9
1985	1353.4	1.18	35	219.7	0.19	9

ug/m^3 = micrograms per cubic meter
ppm = parts per million

Source: Bay Area Air Quality Management District, "Guidelines for Air Quality Impact Analysis of Projects", June 1975, revised 24 January 1980, Thomas Reid Associates.

The low carbon monoxide levels near the site are due to the correspondingly low levels of traffic on Sutter and Sansome Streets. Commuter parking in lots near the project would increase overall carbon monoxide levels in the downtown area. Without expanded MUNI service, increased automobile use would also result in carbon monoxide levels approximately 8% higher than what would otherwise occur near the site.

Air quality impacts of both the project and cumulative downtown development would be more likely to show up in the 8-hour averaging period. At present, the 8-hour average carbon monoxide standard is violated about three times per year in downtown San Francisco. The project would aggravate violations of the 8-hour standard, in proportion to the overall increase in downtown traffic caused by the project.

The present tendency to occasional violations of the 1-hour

averaging standard would be affected by the increase in traffic and congestion from the project. Anticipated emission controls would reduce overall violations by 1982 and beyond; the project

impact would partially counter this amelioration. The cumulative increase in new downtown development would result in a proportionately greater effect on local air quality. The increased traffic to result from cumulative development would negate most of the improvement from vehicle emission controls.

c. Regional Air Quality Impacts During Project Operation

Regional impacts result when increased downtown employment stimulates long-distance commuting in the San Francisco Bay airshed. Based on the transportation impact analysis (see Section IV-D, page 90), an estimate of increased vehicle miles travelled (VMT) per day was made and regional air emissions were estimated as shown in Table 11.[1] Although the project would result in nearly 32,000 additional commute trip miles per day, the associated emissions would constitute less than one-tenth of one percent of the total emissions of the entire region (except for nitrates) and about one half percent of regional auto emissions. The increase in hydrocarbons would cause a slight increase in the magnitude and frequency of regional violations of oxidant or ozone standards, aggravating the existing poor air quality in the region and counteracting a small part of the effort to reduce ozone pollution by vehicle

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[1] VMT assignments and emissions factors are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

TABLE 11

REGIONAL AIR QUALITY IMPACT

	BAY AREA		CUMULATIVE DEVELOPMENT					
	ALL SOURCES	AUTO EMISSIONS	ONE SANSOME			OTHER PROJECTS		
POLLUTANT	TONS/DAY	TONS/DAY	KG/DAY	TONS/DAY	% OF REGIONAL AUTO EMISSIONS	KG/DAY	TONS/DAY	% OF REGIONAL AUTO EMISSIONS
CO	4006	1768.7	441.9	0.5	0.03	7102.2	7.8	0.4
HC	797	117	33.2	0.04	0.03	538.3	0.6	0.5
NOx	692	89.3	53.1	0.06	0.07	1045.7	1.2	1.3
SOx	435	9.7	4.4	0.005	0.05	85.7	0.09	1.0
MP	192	18.8	8.5	0.009	0.05	164.9	0.2	1.0

Year of analysis: 1985

Auto emission factors derived from EMFAC-5, California Air Resources Board, Sacramento, CA.

Regional inventory from Association of Bay Area Governments, "Bay Area Air Quality Maintenance Plan", June 1978, p.VI-45.

Source: Thomas Reid Associates

emissions controls and regional transportation plans. Increased bus emissions from additional runs generated by the proposed project would be less than one percent of emissions generated by project automobiles. Even for nitrogen oxides, traditionally a major pollutant from diesel fuel, transit emissions would be less than one-half percent of private commute vehicle emissions. Regional air quality impacts would increase by 2% if MUNI is unable to expand capacity, resulting in greater automobile use.

F. NOISE

The potential noise impacts associated with the proposed project would differ during project construction and project operation. During construction, heavy equipment, pile driving, and trucking would create continuous daytime noise at the site. After completion, noise from the building itself could not be distinguished from background noise. The proposed change in facade textures and configurations would change acoustic characteristics, affecting perceived noise at the pedestrian level.

Noise impacts would affect two populations: pedestrians at street level and daytime office workers in nearby buildings. At present, pedestrians experience median noise levels of 65 to 70 decibels (dB(A)).[1] The occasional truck or diesel bus accelerating from a stop produces peak noise levels of 85 dBA. In this sound environment, the average pedestrian experiences difficulty in normal speech at a speaker-listener distance greater than about 6 to 10 feet. During peak noise, communication would be possible only at close distance and at

[1] dB(A) is the measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale which simulates the response of the human ear to various frequencies of sound.

raised voice levels. In office buildings, street noise is attenuated by distance (including elevation) and by building

walls. In a building with unopened windows, attenuation of roughly 20 dB is typical. The internal sound environment is then dominated by internally-generated noise, which typically ranges from 55 to 65 dBA in an office building.

The project would affect noise levels in two ways. First, the project would result in an increase in overall background noise. Sound is measured on a logarithmic scale. A large increase in absolute sound pressure is necessary to produce a smaller increase in the decibel measurement of sound. The listener's experience of noise matches the logarithmic relationship. For example, to increase the median sound level by 3 dB requires a doubling of the noise source (of randomly phased sound). Since the dominant noise source for the pedestrian is street traffic, traffic would have to double to increase the median ambient noise level by 3 dB.

Second, the project would cause intrusion of identifiable noises at independent sound levels greater than the typical background level. As a rule, a single event with noise level greater than 10 dB above ambient levels is considered an intrusion.[1] The 10 dB increase represents a ten-fold increase in randomly phased sound energy, and corresponds to approximtely a doubling of the psychological impression of sound in a listener. The significance of intruding noise is not simply its greater acoustic intensity, it is also important that the listener can clearly identify the intruding noise above background and may couple the intrusion with distinctly negative psychological associations. The noticeable quality or psychological aspect of intruding noise makes it one of the important factors in community complaints about noise.

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[1] Wyle Laboratories, Community Noise, prepared for U.S. Envioronmental Protection Agency, 31 December 1971, page 46.

1. Noise Impacts Due to Project Construction

Construction noise would result from the variety of equipment necessary to demolish the existing structures, haul materials, complete the foundation, and construct the new tower. Newer equipment and noise ordinances like that of the City and County of San Francisco have reduced construction noise impacts compared with past levels.

During the approximate two-year construction, the source(s) and character of noise would change with project phases. Typical sound levels at 50 feet for some construction equipment are summarized in Table 12. Most construction equipment produces noise continually varying over the range given in the figure. The high, short-term variability and the peak noise of most construction equipment cause most intruding noise impacts.

Pile drivers are the single noisiest pieces of construction equipment at construction sites. Diesel-driven impact drivers produce peak levels in excess of 100 dB(A) at 100 ft. The project construction schedule calls for 2 months of foundation work including pile driving. Construction noise would also result from the approximately 8900 truck movements generated by construction activity over the 2-year construction period.

2. Noise Impacts Due to Project Operation

The building design provides no parking spaces for occupants. Building employees would either use transit or park in garages south of Market Street and would not necessarily increase traffic levels, and hence traffic noise near the site. Projected increases in service vehicle trips, spread throughout the day, would not perceptibly change ambient noise levels. Two additional diesel bus trips per day during the peak hours would be needed to accommodate increased transit demand resulting from the project. These runs, if actually added,

TABLE 12

CONSTRUCTION EQUIPMENT NOISE RANGES

TYPE OF EQUIPMENT	Noise Level (dbA) at 50 Feet
Equipment Powered by Internal Combustion Engines	
Earth Moving:	
Compacters (Rollers)	73-75
Front Loaders	72-84
Backhoes	72-93
Tractors	77-96
Scrapers, Graders	80-92
Pavers	86-88
Trucks	82-94
Materials Handling:	
Concrete Mixers	75-87
Concrete Pumps	81-83
Cranes (Movable)	76-86
Cranes (Derrick)	86-88
Stationary:	
Pumps	69-71
Generators	71-82
Compressors	74-86
Impact Equipment:	
Pneumatic Wrenches	83-88
Jack Hammers & Rock Drills	81-98
Pile Drivers (Peaks)	95-106
Other:	
Vibrator	69-81
Saws	72-81

Note: Based on limited available data samples

Source: USEPA, Noise From Construction Equipment and Operations, Building Equipment and Home Appliances, 31 December, 1971.

would represent another intruding noise event, but would not perceptibly raise noise levels at the site or on nearby downtown streets. The project's contribution to increased noise reflection and reverberation at street level is impossible to quantify due to the lack of information on the urban canyon effect. It is expected, however, that the increase would not be noticeable to most pedestrians for two reasons: 1) along Sutter Street, the existing Holbrook Building already presents a 7-story reflective surface adjacent to the sidewalk; and 2) the new tower would be set back from Sansome Street and from the Crown-Zellerbach Plaza providing an avenue of escape for some of the noise generated at street level by traffic.

Mechanical equipment including pumps and blowers associated with space conditioning would produce some noise. The attenuation of internally-produced building noise from such sources, as well as from elevators and lighting fixtures is a design concern which would primarily affect building occupants. Noise levels beyond the building facade would be indistinguishable from the existing ambient noise environment.[1]

G. GEOLOGY AND SEISMICITY

The foundation of the building would be a deep foundation system. Piles would be driven into bedrock at depths of approximately 160 to 170 feet. The materials which would bear the load are relatively incompressible, so that only minor

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[1]The San Francisco Noise Ordinance, Section 2909, (Municipal Code, Part II, Chapter VIII, Section I, Article 29, 1972) limits mechanical equipment noise levels to 70dBA between 7am. and 10 am. and 60dBA between the hours of 10 pm. an 7 am. in the downtown area.

settlement would be expected to occur.[1] Approximately 13,000 cubic yards of earth would be removed and transported to a disposal site near Daly City or South San Francisco.[2] The removal of earth during site excavation could cause the spillage of silt and sand in the streets along the haul routes. The spills could be a safety hazard for operators of vehicles, particularly motorcyclists and bicyclists. The dirt could also be source of dust and cause siltation in the storm drains.

Ground-shaking during an earthquake might damage the proposed building, but probably would not cause its collapse. The structure would be designed to meet the seismic standards of the San Francisco Building Code and the Uniform Building Code (UBC) or the Structural Engineers Association of California (SEAOC). The SEAOC standards relate the structural design to the maximum probable earthquake in the region, an 8.3 Richter magnitude[3] event on the San Andreas fault. The design approach would be to minimize damage and loss of life from an earthquake. Swaying motions of the tower during an earthquake could damage the glass and concrete exterior of the building, causing glass panels to break and fall into the street. The approach to the design and strength of these panels would be similar to that for other high-rise buildings in San Francisco and would accommodate the maximum anticipated lateral movement without breaking or falling. The likelihood of falling glass

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[1]D. Oh, Chin & Hensolt Engineers, Inc., telephone communication, 10 October 1980.
[2]T. Ray, Swinerton & Walberg Co., letter communication, 17 October 1980. This letter is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3]The Richter Scale is a logarithmic scale developed by Charles Richter to measure earthquake magnitude by the energy released, as opposed to earthquake intensity as determined by effects on people, structures and earth materials.

would be reduced, but the hazard could not be eliminated. If liquefication and lateral landsliding were to occur in the vicinity, water mains, pipes and underground utility lines could break, leaving the building without water, power or telephone communications. Emergency water storage and a power generator would be incorporated into the building as required by the City Building Code.

H. ENERGY

During the 2-year construction period, the project would require approximately 84,000 gallons of gasoline including diesel fuel for trucks and equipment and about 1.7 million kilowatt hours of electricity.[1] An unknown amount of energy would also be required to fabricate construction materials and to transport workers to and from the site.

The mechanical system would be an all-air, variable-air-volume system. The air would be supplied from two central fan systems located in the mechanical rooms on the third floor and the penthouse. Chilled water for space conditioning would be supplied from electrically-driven, centrifugal water chillers. Steam for heating would be supplied from gas-fired boilers with oil backup for an alternate fuel source. The possibility of purchasing steam from Pacific Gas and Electric Company is being considered, depending upon availability and the results of a study of costs. The main electrical 277/480 volt service from Pacific Gas and Electric Company would be located in the basement electrical room. Distribution throughout the building would be by electrical bus ducts to distribution panelboards, motor control centers and lighting

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[1]T. Ray, Swinerton & Walberg Company, letter communication, 17 October 1980.

panels. On the tenant floors, 120/208 volt transformers would be provided to reduce voltage for appliance and 120-volt lighting loads. An oil-fired, emergency generator would be provided in the basement to furnish a standby electrical energy source for life safety system components, night lighting, partial elevator operation and some mechanical equipment operation.

Electricity would be used for building lighting, power, cooking, elevators and air conditioning requirements. The total connected kilowatt load for the project is estimated at 8,580 kilowatts. During operation, the project would require about 11.4 million kilowatt hours of electricity per year.[1] The project's estimated average monthly electrical consumption would be about 950,275 kilowatt hours (kwh), equivalent to 1.16 kwh per square foot of total building area per month. The anticipated daily and annual electrical consumption curves are shown in Figure 51. Peak consumption would occur at about 2:00 p.m. in August due to cooling and ventilating needs.

Natural gas would be used for space heating and domestic water heating. A low sulphur content fuel oil would also be used in the building to power the emergency generator and fire pump, and as a standby fuel for boiler operation. The project would require approximately 28.1 billion British Thermal Units (BTU's)[2] of natural gas per year.[3] Preliminary natural gas

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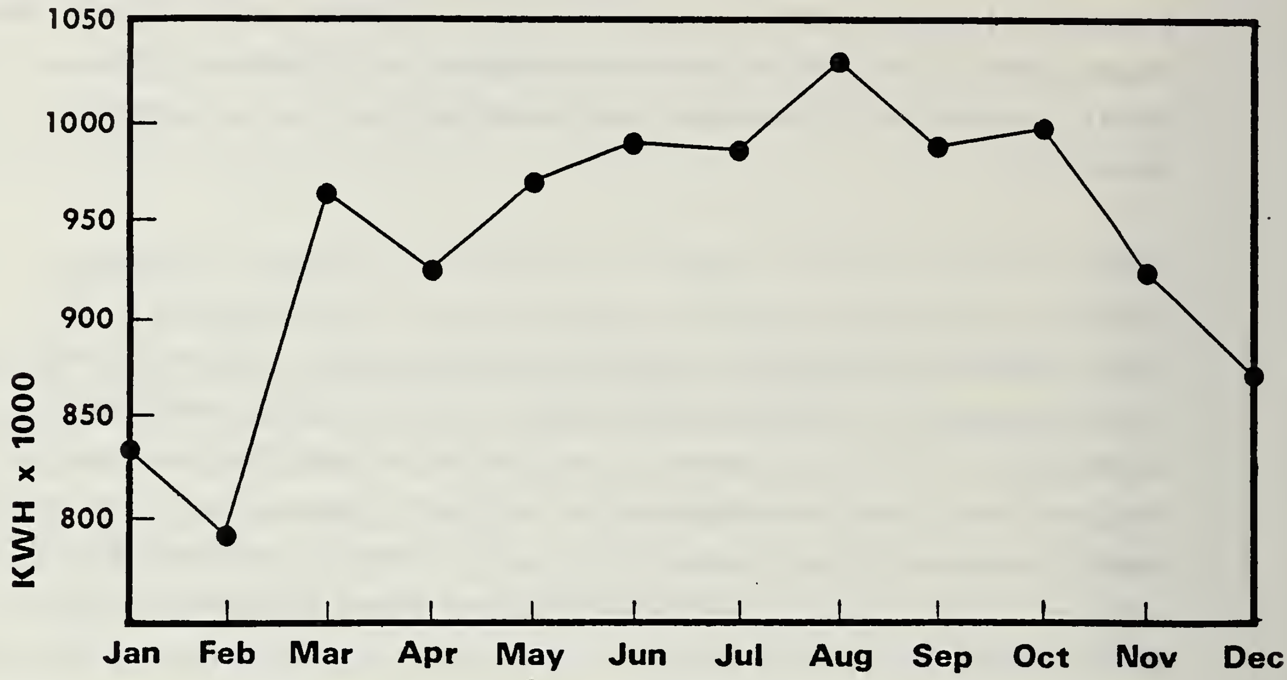
[1]Bentley/D.Giacomo Joint Venture, Mechanical and Electrical Data for Environmental Impact Report, One Sansome Office Building, 19 November 1980. This report is on file and available for public review at the San Francisco Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[2]See Note 1 from page 130.

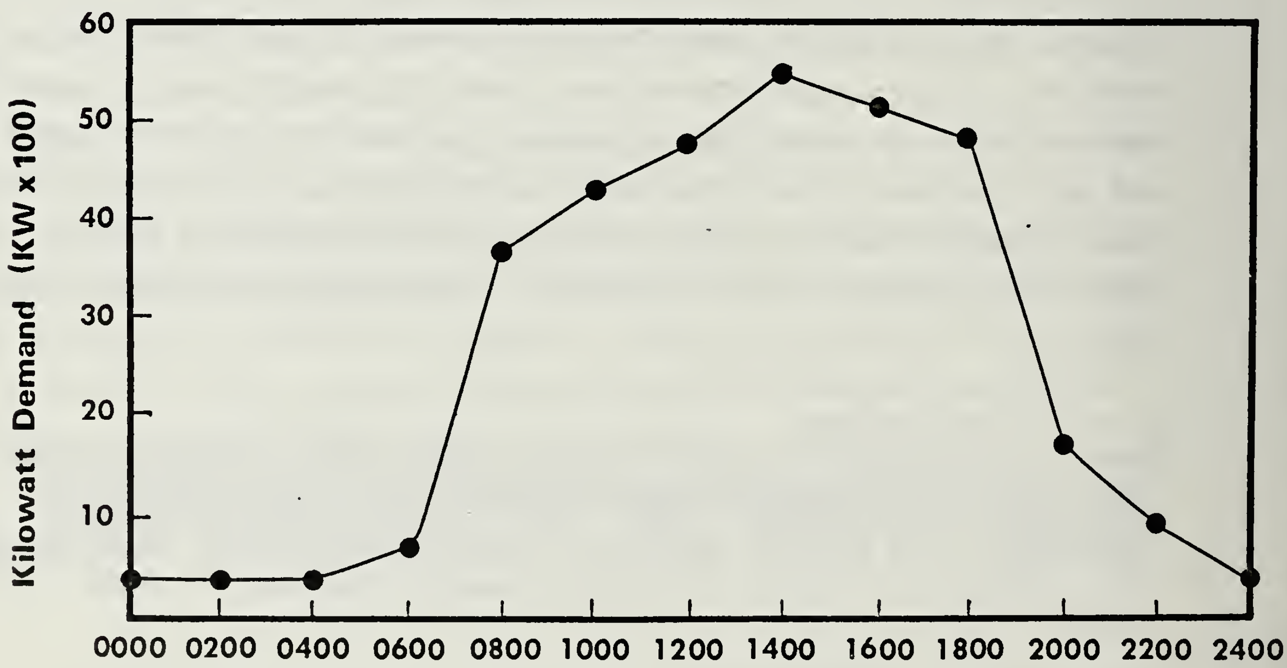
[3]Bentley/DiGiacomo Joint Venture, op. cit.

figure 51 ESTIMATED ELECTRICAL CONSUMPTION

Source: Donald Bentley & Associates.



Monthly Consumption



Hourly Demand

calculations for the project indicate the peak natural gas flow rate would be approximately 12,560 cubic feet per hour during a warm-up in January. The average daily consumption of natural gas would be about 110 BTU's[1] per square foot of interior floor space per day. The anticipated daily and annual natural gas consumption curves are shown in Figure 52.

Fuel consumption due to vehicular traffic generated by the proposed project would be approximately 400,000 gallons per year.

I. COMMUNITY SERVICES

The proposed project would increase the employee population on the site and could result in an increase in the number of calls for police assistance. Certain retail-related crime incidents such as shoplifting, burglary and robbery could increase with the construction of the retail arcade and office structure. The San Francisco Police Department anticipates that existing police staff would be able to respond to these additional project-related calls and that the proposed project would not require additional officers.[2]

The project would incorporate fire protection measures required by the San Francisco Building Code. Existing water distribution systems are adequate to meet the needs of the

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[1]The "British Thermal Unit" (BTU) is a standard for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water 1 degree Farenheit (251.98 calories) at sea level.

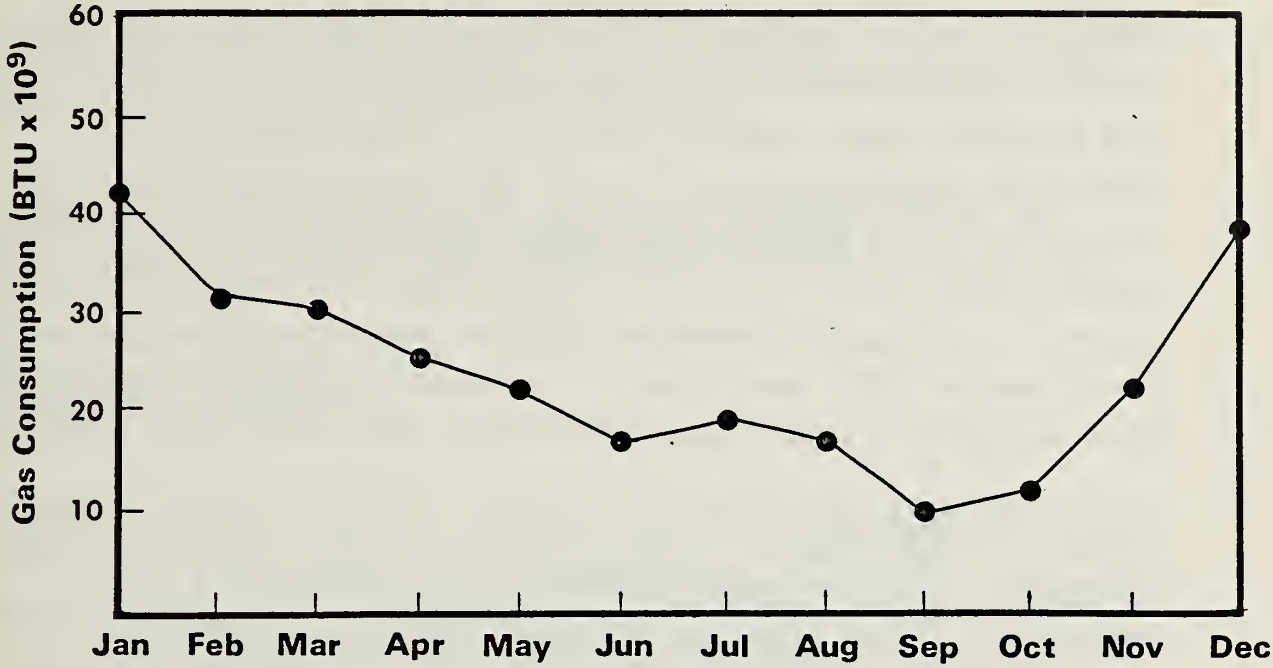
[2]Lt. T. O'Donnell, Planning and Research Division, San Francisco Police Department, letter communication, 22 November 1978, and Captain D'Arcy, Central District Station, San Francisco Police Department, telephone communication, 16 October 1980.

proposed project for fire-fighting services.[3] The Fire

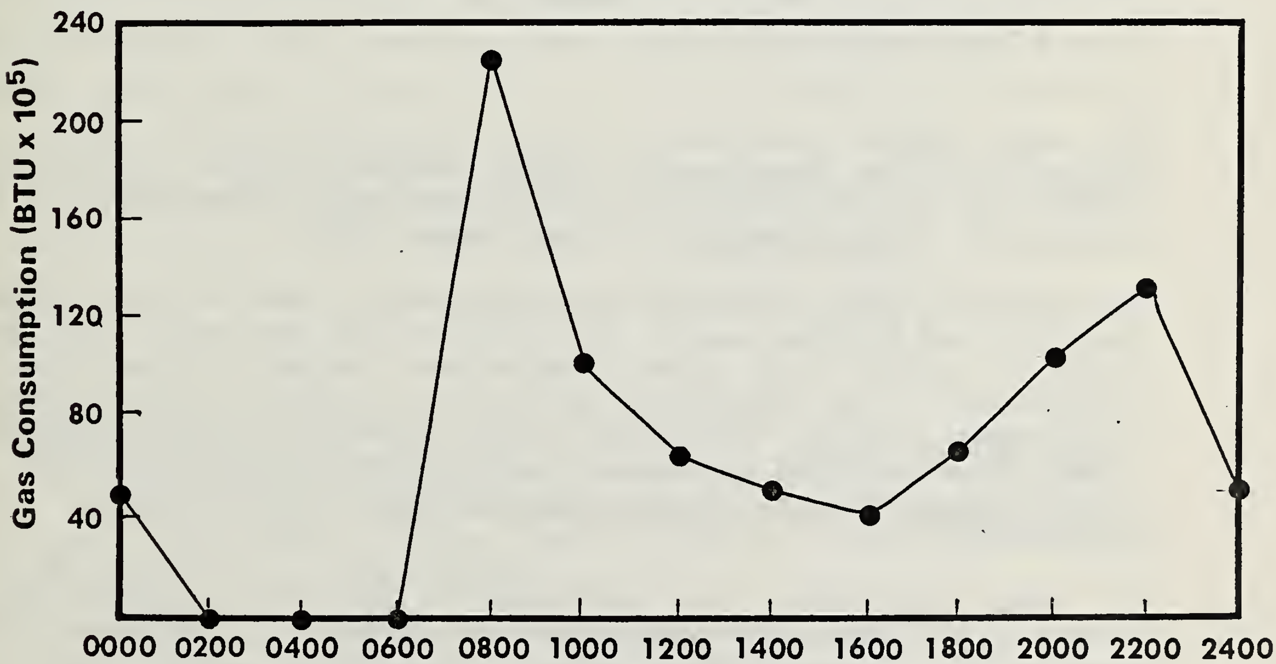
[3] E. Calmoneri, San Francisco Fire Department, telephone communication, 19 September 1980.

ESTIMATED GAS CONSUMPTION

Source: Donald Bentley & Associates.



Monthly Consumption



Hourly Consumption

Department does not anticipate the need for additional fire-fighting staff or equipment.[1]

Estimated water demand for the project when fully occupied would be approximately 80,000 gallons per day, or about 6 times the current water use at the site.[2] This amount would represent approximately 0.1% of the average daily San Francisco water use. The Water Department anticipates that the new water demand could be met without enlargements or relocations of mains.[3] Cumulative downtown office development projected to occur before 1983 would use an estimated 1,087,500 gallons per day, or about 1% of the average daily San Francisco water use.

Projected wastewater flows generated by the project at full occupancy would be approximately 64,000 gallons per day.[4] Wastewater flows from the project would represent about 0.1% of the dry-weather flows at the North Point Water Pollution Control Plant. There is presently sufficient sewer capacity to accommodate the projected flows and no modifications to the

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[1] R. Rose, Chief, Division of Planning and Research, San Francisco Fire Department, letter communication, 28 November 1978, and E. Calmoneri, San Francisco Fire Department, telephone communication, 19 September 1980.

[2] The water demand estimate assumes retail use of 200 gallons per day and office use of 125 gallons per day per 1,000 square feet of usable floor space; Brown and Caldwell Consulting Engineers, 1972, Report on Wastewater Loading from Selected Development Areas, as cited in San Francisco City Planning Commission and San Francisco Redevelopment Agency, 1978, Final Environmental Impact Report/Yerba Buena Center, EE.77.220.

[3] J. Kenck, Manager, City Distribution System, San Francisco Water Department, telephone communication, 24 September 1980.

[4] The wastewater flow estimate assumes that 80% of water used is discharged as wastewater. H. Gurman, Superintendent, North Point Sewage Disposal Plant, telephone communication, 28 October 1980.

calculations for the project indicate the peak natural gas flow rate would be approximately 12,560 cubic feet per hour during a warm-up in January. The average daily consumption of natural gas would be about 110 BTU's[1] per square foot of interior floor space per day. The anticipated daily and annual natural gas consumption curves are shown in Figure 52.

Fuel consumption due to vehicular traffic generated by the proposed project would be approximately 400,000 gallons per year.

I. COMMUNITY SERVICES

The proposed project would increase the employee population on the site and could result in an increase in the number of calls for police assistance. Certain retail-related crime incidents such as shoplifting, burglary and robbery could increase with the construction of the retail arcade and office structure. The San Francisco Police Department anticipates that existing police staff would be able to respond to these additional project-related calls and that the proposed project would not require additional officers.[2]

The project would incorporate fire protection measures required by the San Francisco Building Code. Existing water distribution systems are adequate to meet the needs of the

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[1]The "British Thermal Unit" (BTU) is a standard for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water 1 degree Farenheit (251.98 calories) at sea level.

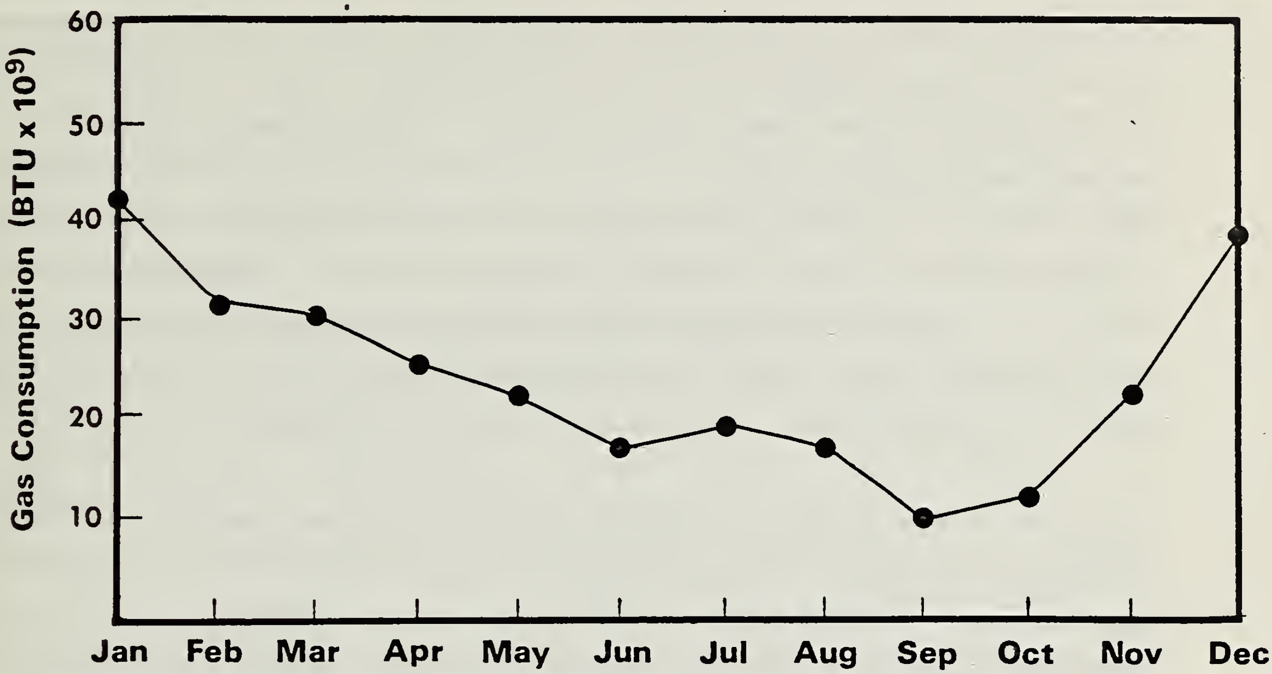
[2]Lt. T. O'Donnell, Planning and Research Division, San Francisco Police Department, letter communication, 22 November 1978, and Captain D'Arcy, Central District Station, San Francisco Police Department, telephone communication, 16 October 1980.

proposed project for fire-fighting services.[3] The Fire

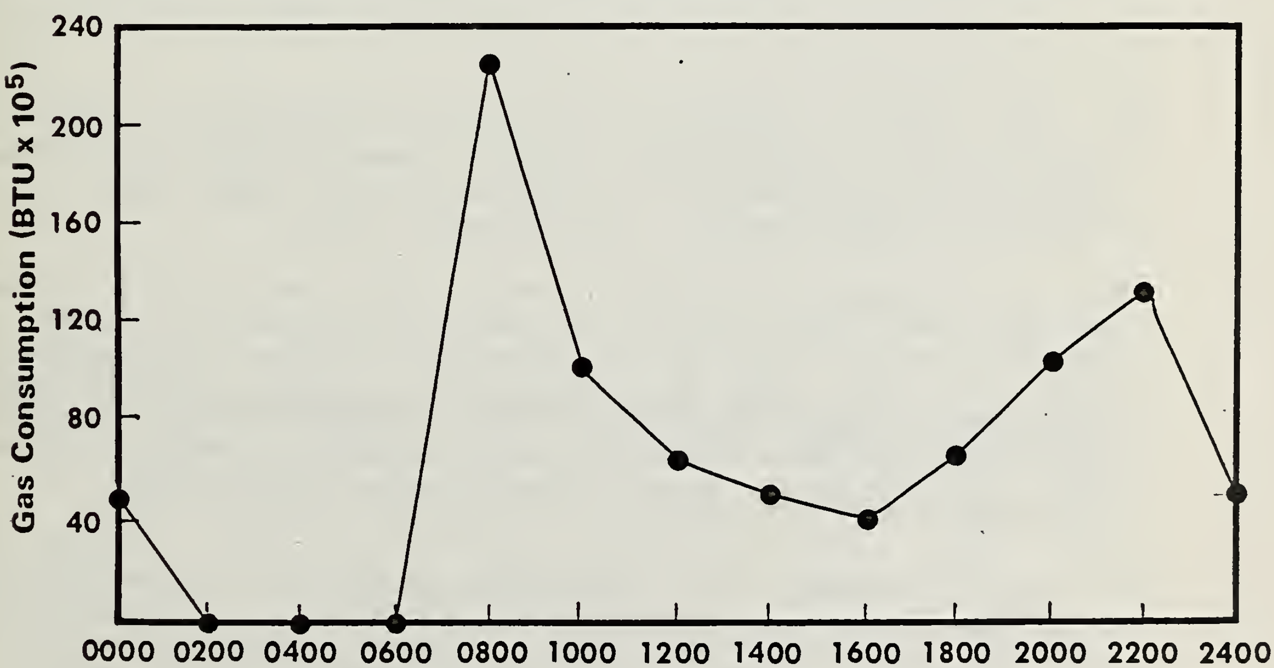
[3] E. Calmoneri, San Francisco Fire Department, telephone communication, 19 September 1980.

figure 52 ESTIMATED GAS CONSUMPTION

Source: Donald Bentley & Associates.



Monthly Consumption



Hourly Consumption

Department does not anticipate the need for additional fire-fighting staff or equipment.[1]

Estimated water demand for the project when fully occupied would be approximately 80,000 gallons per day, or about 6 times the current water use at the site.[2] This amount would represent approximately 0.1% of the average daily San Francisco water use. The Water Department anticipates that the new water demand could be met without enlargements or relocations of mains.[3] Cumulative downtown office development projected to occur before 1983 would use an estimated 1,087,500 gallons per day, or about 1% of the average daily San Francisco water use.

Projected wastewater flows generated by the project at full occupancy would be approximately 64,000 gallons per day.[4] Wastewater flows from the project would represent about 0.1% of the dry-weather flows at the North Point Water Pollution Control Plant. There is presently sufficient sewer capacity to accommodate the projected flows and no modifications to the

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[1] R. Rose, Chief, Division of Planning and Research, San Francisco Fire Department, letter communication, 28 November 1978, and E. Calmoneri, San Francisco Fire Department, telephone communication, 19 September 1980.

[2] The water demand estimate assumes retail use of 200 gallons per day and office use of 125 gallons per day per 1,000 square feet of usable floor space; Brown and Caldwell Consulting Engineers, 1972, Report on Wastewater Loading from Selected Development Areas, as cited in San Francisco City Planning Commission and San Francisco Redevelopment Agency, 1978, Final Environmental Impact Report/Yerba Buena Center, EE.77.220.

[3] J. Kenck, Manager, City Distribution System, San Francisco Water Department, telephone communication, 24 September 1980.

[4] The wastewater flow estimate assumes that 80% of water used is discharged as wastewater. H. Gurman, Superintendent, North Point Sewage Disposal Plant, telephone communication, 28 October 1980.

system would be required.[1] Cumulative downtown office development projected to occur before 1983 would generate 870,000 gallons per day, or 1.7% of the average daily wastewater flows to the North Point Plant.

The proposed project would generate approximately 4 tons of solid waste per day.[2] This is about 5 times the current amount generated at the site and approximately 0.3% of the Golden Gate Disposal Company's current daily volume of about 1,500 tons. The projected load would require daily collection by a compactor truck. Golden Gate Disposal Company anticipates no difficulty in accommodating this demand.[3] Cumulative downtown office development projected to occur before 1983 would generate an estimated 44 tons per day or about 3% of the current daily volume collected by Golden Gate Disposal Company.

New telephone service would be installed by Pacific Telephone and Telegraph from Sansome Street. The existing system would be able to accommodate the additional circuit load from the project without complications.[4]

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[1]H. Gurman, Superintendent, North Point Sewage Disposal Plant, telephone communication, 28 October 1980.

[2]State of California Solid Waste Management Board, 1974, "Solid Waste Generation Factors in California", 1 lb/100 sq. ft. of floor space/day.

[3]F. Garbarino, Office Manager, Golden Gate Disposal Company, telephone communication, 25 September 1980.

[4]R Richard, Engineer, Pacific Telephone & Telegraph Company, telephone communication, 28 October 1980.

J. ECONOMIC AND FISCAL FACTORS

1. Office and Retail Space

The project would continue the trend toward more intensive use of land in the Financial District. Construction of the proposed project would cause the demolition of 2 buildings and the removal of about 152,300 gross square feet of office, banking and retail space. The project would add about 809,900 gross square feet for a net increase of approximately 657,600 square feet of gross building area on the site. The net increase in occupiable office space would be approximately 518,000 square feet. About 10,500 square feet of leasable retail space in the Holbrook Building would be removed and replaced by 6,500 square feet of retail and 10,900 square feet of commercial banking or retail space. Projected annual rents for office space in the proposed project would range from $25 to $30 per square foot.

2. Permanent Employment

Total permanent employment at the project site would be about 3,100 persons, a net increase of 2,737 employees or 749%. Approximately 97% of the workers would hold office jobs. Citywide and regional increases in direct employment are assumed to be equivalent to total on-site employment.[1] This direct increase in employment would contribute indirectly to

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[1]It is assumed for purposes of describing worst-case downtown transportation and other impacts that the creation of new office space increases total space and total employment. The correlative assumption is that existing on-site employment will relocate to other space vacated as a result of this and other proposed projects or to currently vacant space. There is the possibility that some jobs would be lost to the city or regional economy. If all on-site jobs were lost, estimated employment impacts would be 88% of those projected.

the income and employment of other residents of the city and region through the "multiplier effect".[1] An estimated 40% or 1240 workers, would be San Francisco residents, with 60% or 1860, residents of other communities outside the city.[2] The estimated multiplier effect on jobs resulting from projected resident employment is about 1.6.[3] This means that for every

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[1]The multiplier effect may be expressed in terms of income or employment, in which case reference is made to the income multiplier or employment multiplier, respectively. The employment (or income) multiplier is a quantitative expression of the extent to which a change in local production induces an overall change in employment (or income). This means that for each San Francisco resident employed (or deriving income) as a result of the project, additional employment (income) opportunities in the city would be generated by his or her demand for goods and servicces. As residents tend to spend their incomes in San Francisco, their purchases become income to those who sell goods and services. These sellers, in turn, spend a portion of their income on their own purchases, and so on. The resulting increase in the level of economic activity provides additional jobs (and income). The same effect occurs with respect to non-resident employees, in which case the multiplier effect is less than that for San Francisco residents' income and employment and correspondingly greater for those working or selling goods and services in the communities in which non-resident employees live.

[2]This estimate was derived from Appendix F, Transportation Methodology, Table F-2, in which 42.8% of all daily work trips by auto, MUNI and by foot were determined to be taken by S.F. residents. This 40%-60% split also was a conclusion of the San Francisco Planning and Urban Renewal Association, <u>Impact of Intensive High-Rise Development on San Francisco, Detailed Findings</u>, June, 1975. The problems involved in estimating San Francisco employment by place of residence are fully discussed in Arthur D. Little, Inc., <u>Commercial and Industrial Activity in San Francisco</u>, June, 1975, pp. II-65 - II-68.

[3]San Francisco Planning Commission, <u>Final Environmental Impact Report, Bank of America Data Center</u>. EE 74.128, 25 July 1975, p.92. The multipliers used in this EIR are the best available, having been based on a survey of employee expenditures. The estimate is believed suitable for use in connection with the proposed project because office employment consists of a high proportion of clerical employees at comparable wage levels. Actual multiplier effects of the

(Footnote continues on following page)

100 jobs held by San Francisco residents, the total number of jobs in San Francisco would increase by 160, 100 provided directly and 60 indirectly through the multiplier process. The proposed project's estimated 1,240 on-site jobs held by residents would thereby generate an additional 745 local jobs. The employment multiplier for jobs held by non-residents with respect to impacts on local jobs generated through the multiplier process is estimated to be 0.13.[1] The multiplier is less than that for employed residents because non-residents would spend a lower percentage of their income in the city. The proposed project's estimated 1,860 non-resident employees would thereby generate an additional 240 jobs. Total direct and indirect jobs generated in San Francisco would be 4,085 (1,240 + 1,860 + 745 + 240). Additional jobs would also be created elsewhere in the region through the multiplier effect. Not all jobs would be new to the City since firms already located in the City would be expected to move into the proposed building.

Based on Keyser Marston Associates, Inc.'s survey of downtown office workers, estimated taxable annual expenditures for meals, apparel, cosmetics and so forth by office workers are $950 per capita (1979 dollars).[2] Total estimated downtown expenditures by the 3100 permanent office employees would be about $2.9 million annually.

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proposed project would probably be higher due to the large component of higher income professional and managerial occupations represented in a downtown high-rise office building than in the data center.

[1]See Note 3 page 135.

[2]San Francisco Department of City Planning, Final Environmental Impact Report, Daon Building. EE 79.57, 15 February 1980, p.65.

3. Short-term Construction Employment

The proposed project would require an estimated 600 person-years of on-site, construction labor with a construction payroll of $15 million.[1] This would represent an average of 300 full-time jobs at any one time during the 24-month construction period, including demolition and site preparation. About 60%, or 180 of these jobs would be expected to be held by San Francisco residents.[2] Secondary temporary employment effects would result from direct construction employment because each construction laborer generates additional regional employment opportunities by his or her demand for goods and services. This is estimated to be the equivalent of 570 full-time one-year jobs in the region.[3]

4. Relocation

Approximately 43 businesses employing about 360 persons would be displaced by the proposed project. The effects of relocation would include the costs of moving, renovation, possible loss of public patronage and time spent in search of a

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[1]T. Ray, Swinerton & Walberg Co., letter communication, 17 October 1980. This letter is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[2]T. Ray, Swinerton & Walberg Co., telephone communication, 11 July 1981.

[3]San Francisco City Planning Commission, Draft Environmental Impact Report, Bank of Tokyo of California Building. EE 74.170, 24 January 1975, pp. 41-42, and Draft Environmental Impact Report, Bank of America Data Center, EE 74.128, 25 July 1975, Vol. I, pp. 94-95. The estimated multiplier for construction employment is 1.9. An explanation of multiplier effects is found on p. 135, note #1 of this report.

new location. The Crocker Bank branch at One Sansome has an option to lease a portion of the proposed project and will likely do so.[1] Most present tenants are small commercial offices which would probably relocate with less difficulty than would retail tenants.

5. Revenues and Costs

The fair market value of the project, based on estimated costs, would be approximately $90 million (in 1980 dollars).[2] The estimated assessed value would be $22.5 million and the project would generate $1,107,000 in property tax revenues annually based on current tax rates.[3] Appreciation of land value and escalation of construction costs is expected before completion of construction and occupancy; however, all estimates are given in 1980 dollar values. Taxes received on the property in Fiscal Year 1979-1980 were about $117,000[4], or 11% of estimated property taxes with the proposed project. The net increase over existing property tax revenues would be about $990,000.

The retail arcade would generate an estimated $63,400 in sales tax revenues, of which about $9,800 would go to the City and

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[1]P. Dayton, President, Cushman & Wakefield, personal communication, 5 March 1980.

[2]Estimated fair market value based on replacement cost, including land acquisition, construction cost, design fees and interim financing. Calculations are available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3]Assessed value computed as 25% of estimated market value and taxes computed at the 1980-81 rate of $4.92 per $100 of assessed valuation.

[4]Assessed value of the existing site including land and improvements at $2,381,499 at the tax rate of $4.92 per $100 of assessed valuation.

County of San Francisco.[1] This represents an increase of $43,900, or 225% in sales tax revenues over estimated existing sales tax revenues of $19,500. The estimated payroll tax generated by the project for permanent employment would be about $306,900.[2] In the short-run, some or all of the payroll tax revenue might not be net revenue, to the extent that workers relocated to the project from other San Francisco locations. Only as space vacated elsewhere is taken by firms and employees entering the San Francisco market would the new office space at the project site generate net new payroll tax revenues.

Costs incurred by the City and County of San Francisco and by other local governments as a result of the proposed project and cumulative downtown development are estimated to be related primarily to increased demand for transit services, especially on BART, MUNI and Golden Gate Transit where capacity increases would be required. Direct costs for other public services would not be measurably increased and cannot be quantified (see pp 130-133), although increased costs could occur as a result of associated population increases (see Growth Inducement, p. 140B). Planned MUNI and BART capacity increases are based on anticipated revenues; however, available revenues are not assured. Golden Gate Transit plans no capacity increases. In the context of cumulative downtown development and employment growth, a cumulative fiscal impact on MUNI and BART could occur. In addition, such cumulative fiscal impact on MUNI could result in overall incremental costs exceeding incremental

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[1] Based on estimated annual gross receipts of $975,000 at the sales tax rate of 6.5%. One percent goes to San Francisco's General Fund.

[2] Earnings for 3100 office workers at the project site of $46.5 million annually based on an average wage of $15,000 (60% eligible) for tax at a rate of 1.1%.

revenues for the City and County of San Francisco.[1] At an estimated incremental cost to MUNI of 21.4¢ per one-way peak hour passenger trip[2], the proposed project would result in approximately $65,000 additional annual costs and cumulative downtown development would increase MUNI costs by about $735,000 per year.[3]

The City and County enacted two ordinances on May 5, 1981 which are intended to increase the ability of the City to finance augmented MUNI service to the downtown area in order to accommodate increased demand. Ordinance No. 224-81 establishes a Transit Impact Development Fee applicable to all new development, including the proposed project, imposing a fee of up to $5.00 per square foot of new office space, based on estimated additional demand for MUNI services. A lawsuit was filed on May 27, 1981 to prevent the collection of this fee. In the event that the fee is determined to be enforceable, the monies received pursuant to this ordinance must be used to increase MUNI service to the downtown area and would be used

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[1]Sedway/Cooke, Downtown San Francisco Conservation and Development Planning Program Phase I Study, October, 1979, pp. 56-58; David Jones, Downtown High Rise District Cost Revenue Study, February, 1981. Other information suggests that downtown revenues may exceed costs. Arthur Andersen & Company, Downtown Highrise District Cost Revenue Study, November, 1980. Gruen + Gruen Associates, Fiscal Impacts of New Downtown High-Rises on the City and County of San Francisco, March, 1981.

[2]B. Bernhard, Transportation Economist, Public Utilities Commission, City and County of San Francisco, Memorandum on Transit Development Fee Cost Analysis, 9 July 1980, "Table 2, Marginal Cost Computation". This memorandum is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street.

[3]Annual estimates assumed that projected weekday trips are made 240 days per year. Thus, the calculation for the project is 636 trips x 2 trips/day x 240 days x 21.4¢ = $65,330.

therefore to mitigate the impacts of the proposed project and other projects on MUNI service by increasing MUNI peak hour capacity.

Ordinance No. 225-81 authorizes the Board of Supervisors to establish a special assessment district in order to impose assessments on property owners in the downtown area who benefit specially from MUNI services provided in the area. Before any monies would be forthcoming, the Board of Supervisors must pass an ordinance establishing a special assessment district, determining the assessment formulas and determining the share of MUNI costs to be financed from assessments. Litigation is likely. If the assessment district is established and upheld against legal challenge, additional funding could be available in the future to improve MUNI service, depending on budgetary decisions by the Mayor and the Board of Supervisors. The proposed project, like other proposed projects, would receive a credit against any such assessment based on payment of the transit impact development fee.

BART has a current per passenger deficit of 97¢ per trip. If this deficit continued to be incurred for new peak hour travel, the proposed project would result in an increase in the deficit of about $254,000 annually, which would be partially offset by receipt of up to $4,900 in additional sales tax revenues allocable to BART.

If federal assistance is granted to BART to acquire new cars by 1985, based on marginal costs to BART of 69¢ per peak hour passenger trip (including new capital outlays) incurred to serve additional passengers, each new passenger trip would generate net marginal revenues of 41¢. Thus, the proposed project would generate additional annual revenues of $64,900, while cumulative development would generate additional revenues of $734,000. Positive marginal revenues over costs would result from the relatively small increase in capital and

operating requirements compared to the existing investment in capital and existing operating costs. If federal assistance were not available for acquisition of new cars, each new peak hour passenger trip would generate net marginal costs of 35¢.[4]

K. GROWTH INDUCEMENT

The proposed project represents a net increase of about 575,900 square feet of gross floor area and 2,700 employees over that

[4] M. Birkenthal, Transit Analyst, Bay Area Rapid Transit Analyst, Bay Area Rapid Transit District, telephone communications 14 November 1980, 22 June 1981.

presently existing on the site. The San Francisco staff of Citicorp would vacate their present space at 44 Montgomery which would then become available for other office tenants. The net addition to the supply of office space could cause some firms to relocate to San Francisco and the estimated increase in employment associated with the project could result in an increase in population and households in the City. This growth resulting from the proposed project and other projects could cause an increase in demand for municipal services, housing, transit, parking and other services.

The project may be viewed as growth-inducing with respect to both employment and population in the City and the region, assuming that gross new direct and indirect employment estimated to be generated by the project would attract new residents to San Francisco and the Bay Area. Of the estimated 4,085 jobs generated in San Francisco, 1,635 could be held by San Francisco residents.[1] If all these jobs were taken by persons moving to the City, an additional 910 households in the City could result,[2] with additional demand for housing, as well as a variety of commercial, social, medical and municipal services. The increased demand for housing from this project and other projects could result in upward pressure on housing prices and rents and displacement of lower income households. Due to housing supply constraints, it is also possible that not all new households desiring housing in the City could obtain it.

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[1]This includes the estimated direct 1,520 on-site jobs held by residents and the same ratio (49%) of indirect jobs estimated to be generated by the project.

[2]Based on an estimated 1.8 jobs per City household in Sedway/Cooke, Downtown San Francisco Conservation and Development Planning Program, October 1979, Phase I, pp. 47-48.

Of the net increase of 2700 additional jobs on the site, 40% or 1080 would be expected to be held by San Franciso residents. Although some of these jobs would be expected to be taken by persons who already live in the city, the increased demand for housing which would result if all jobs were taken by new persons moving to the city is estimated at 600 units. The demand for housing disaggregated by income level and price of units cannot be accurately determined; however, generally, lower-salaried downtown employees tend to live in the city, while higher-salaried employees tend to live in the suburbs outside of the city.[3] More downtown workers could afford to rent than buy housing in San Francisco.

Cumulative housing demand resulting from downtown development has been estimated at 17,200 units by 1985.[4] Between 5,000 to 8,000 new units are expected to be built, resulting in a shortfall of approximately 9,000 to 12,000 units. Without substantial new housing construction, increased occupancy of existing housing or displacement of existing residents, not all new households seeking housing in the city would be able to obtain it. If this is the case, downtown office workers would seek housing in other Bay Area housing markets depending on their incomes and preferences and the proportion of workers who live in San Francisco would decline. The city's job/housing imbalance would increase, thereby contributing to increased commuting, traffic congestion, fuel consumption, air quality deterioration, and housing costs.

[3] San Francisco City Planning Commission, Final Environmental Impact Report, Five Fremont Center, EE 80.268, December 12, 1980, p. 89.

[4] Ibid, p. 92.

V. MITIGATION MEASURES PROPOSED TO MINIMIZE THE ADVERSE IMPACTS OF THE PROJECT

A number of measures have been identified which would reduce or eliminate potential adverse impacts of the proposed project. Many of these measures have already been adopted and voluntarily incorporated into the planning and design of the proposed project. Other measures are still under consideration by the project sponsors or have been rejected. Although the project sponsor may reject a mitigation measure, the Planning Commission may require it as a condition of project approval.

Table 13 discusses each mitigation measure and its status with respect to the proposed project. Where a measure is under consideration, the actions required for implementation are identified. Where a measure has been rejected, reasons for its rejection are discussed.

TABLE 13

MITIGATION MEASURES PROPOSED TO MINIMIZE THE ADVERSE IMPACTS OF THE PROJECT

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSIDERATION	MEASURES REJECTED (AND REASONS FOR REJECTION
HISTORICAL/CULTURAL		
° Should any historic or archaeological artifacts be found during project excavation, the Environmental Review Officer (ERO) and the City Landmarks Preservation Board would be notified. The ERO would determine the significance of any find, assisted by any experts which might be required, to be provided by the sponsor. The ERO would recommend mitigation measures, if necessary and recommendations would be sent to the State Office of Historic Preservation. Excavation or construction which might damage the discovered resources would be suspended for a maximum of 4 weeks to permit inspection, recommendation and retrieval if appropriate.		° Complete preservation of One Sansome, its entire facade, or disassembly of the interior banking lobby with reassembly in a new building were rejected by the project sponsor due to resulting awkward design relationships, increased costs and reduction in rentable office space. (See Alternatives to the Proposed project, pages 152-178)
° The Sansome Street facade of the existing One Sansome Building would be retained in place and preserved to enclose a public entry court Portions of the Sutter Street facade would be moved and restored to complete the enclosure.		
° Scaled drawings and photos of the site and existing buildings would be prepared in accordance with Historic American Building Survey or National Architectural and Engineering Record Standards and deposited with the Library of Congress.		
° Historical plaques, commemorative markers or photographic displays would be installed at the site as reminders of the demolished buildings.		

TABLE 13 (CONTINUED)

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSTRUCTION	MEASURES REJECTED (AND REASONS FOR REJECTION)
URBAN DESIGN		
° The project would be set back from the Equitable Building, the Standard Oil Building and Sansome Street to minimize view disruption and to preserve views into the Standard Oil Building court. The corners of the new building would be curved in order to reduce apparent bulk. ° The project would retain the existing facade on Sansome Street and at the corner to continue the building edge which defines the street and open space of the Crown-Zellerbach Plaza. ° The project would provide a retail arcade and public entry court enclosed by elements of the existing facade to enhance pedestrian activity in and around the site. ° Planters, fountains, sculpture and seating would be provided in the public entry court to enhance the visual and street-level pedestrian amenity of the project. ° The tower would be composed of pre-cast concrete incorporating as an aggregate the same gray granite found on the facade of the existing One Sansome building. A horizontal element at the third floor would continue the visual lines of the cornice of the existing One Sansome building. Vertical elements would be spaced to continue the rhythm of the columns and arches. This would help provide a transition in scale and relate the project to existing development.	° Further redesign of the top of the building could create a less uniform skyline silhouette when the proposed project is viewed in conjunction with existing high-rise buildings of similar height. The project architects are considering several alternative designs for treatment of the top.	° Full preservation of the facade of One Sansome along Sansome and Sutter Streets could help maintain the existing pedestrian environment. This was rejected by the project sponsor because of the resulting awkward design relationship with the new tower along Sutter. ° Street trees could be provided to enhance street level amenity. This was rejected as not feasible due to the presence of street vaults under the existing sidewalk and the reduction in sidewalk space for pedestrian traffic.

TABLE 13 (CONTINUED)

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSIDERATION	MEASURES REJECTED (AND REASONS FOR REJECTION)
URBAN DESIGN (CONTINUED) ° The upper two floors of the tower would include balconies and recessed glass to contribute to a more varied skyline. ° The design of signs and graphics would be controlled to avoid distracting appearances. ° Part of the mechanical penthouse would rise above the top of the tower to distinguish the proposed project from other flat-top high-rise buildings in the skyline.		
TRANSPORTATION ° Construction loading and unloading at the site would be behind barricades to prevent vehicle conflicts. ° During demolition and excavation, most trucks would enter and exit the site between the hours of 7 a.m. and 4 p.m. to avoid conflicts with p.m. peak hour traffic. ° The project would provide direct access to the Montgomery Street BART-MUNI station to encourage use of public transportation, reduce pedestrian flows on the sidewalk and reduce street traffic. ° BART tickets and MUNI fast passes would be offered without charge to construction workers to encourage use of BART and MUNI.	° A building directory could be provided in the loading area to reduce loading time. ° The project sponsor could establish a flextime system for its own employees and use its best efforts to encourage other firms to do so by keeping the building open between 7 a.m. and 7 p.m. ° The building management office could provide information on carpools and vanpools to encourage their use. Implementation would depend on the participation of individual firms. ° Bicycle and motorcycle storage for use by couriers and to encourage alternative forms of transportation would be considered if sufficient space existing when building plans are finalized	° Construction work could be staged to provide turnaround space for trucks on-site to reduce traffic disruption due to construction work. This measure was rejected because of the lack of access and space on the site due to the retention of the existing facade along Sansome in place during construction. ° A loading dock for small delivery vehicles could be provided to minimize disruption of traffic flows on streets surrounding the site. This measure was rejected due to the lack of sufficient space.

TABLE 13 (CONTINUED)

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSIDERATION	MEASURES REJECTED (AND REASONS FOR REJECTION)
TRANSPORTATION (Continued)		
° Ramps would make the sidewalk and the arcade area on Sutter Street continuous to provide additional space for pedestrian circulation and queuing for buses. ° The project sponsor would meet with the Traffic Engineering Division of the Bureau of Engineering, MUNI and the Office of Environmental Review to determine additional feasible construction traffic mitigation measures which would be satisfactory to all parties. ° The project sponsor would commit to participation in an assessment district or other mechanism involving one time or annual assessments to provide funds for public transportation on a basis equivalent to that of other participants if the City institutes such a mechanism.	° If the City initiates the closing of Sansome Street between Sutter and Bush and its redesign as a pedestrian/transit mall, the sponsor would be willing to participate with other abutting property owners in providing financial support on a pro rata basis based on the amount of Sansome Street frontage as long as vehicular access to the property is assured. ° The project sponsor could encourage on-site sale of transit passes and urge or require employer tenants to subsidize those tickets where possible.	° Additional loading spaces could reduce on-street loading. This measure was rejected due to the lack of space and lack of requirements for more spaces in the Planning Code. ° A transit shelter could be provided in the arcade along Sutter Street to reduce pedestrian congestion due to bus queuing. This measure was rejected by the project sponsor because the arcade provides sufficient shelter and an additional structure would create a cluttered pedestrian environment.
CLIMATE/AIR QUALITY		
° The site and truckloads of debris to be carried from the site would be watered down during demolition and excavation to reduce dust. ° The public entry court would be protected from most winds by the siting of the office tower and retained facade elements.		° Project development at locations outside of San Francisco's Financial District closer to employee residences could reduce the number of vehicle miles traveled and lessen air quality impacts. This measure was rejected by the project sponsor due to the unsuitability of alternative locations.

TABLE 13 (CONTINUED)

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSIDERATION	MEASURES REJECTED (AND REASONS FOR REJECTION)
CLIMATE/AIR QUALITY (Continued)		° Street trees, kiosks for vendors, telephone booths or bus shelters to reduce windspeeds and provide shelter for pedestrians were rejected by the project sponsor in favor of providing a protected public entry court in front of the new tower along Sansome Street, an arcade along Sutter Street, an enclosed retail arcade and an underground connection to the BART-MUNI subway station.
NOISE		
° Low noise, muffled construction equipment would be used in order to minimize construction noise. ° Holes for foundation piles would be pre-drilled to reduce noise associated with pile-driving activities. ° The project sponsor would meet with the Bureau of Engineering and the Office of Environmental Review to determine additional measures to ameliorate noise during construction.		
GEOLOGY/SEISMICITY		
° Excavation pit walls would be shored up and protected from slumping or lateral movement of soils into the pit. The contractor will comply with excavation standards of the California Occupational Safety and Health Agency (Dept. of Industrial Relations)		

TABLE 13 (CONTINUED)

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSIDERATION	MEASURES REJECTED (AND REASONS FOR REJECTION)
GEOLOGY/SEISMICITY (Continued)		
° The project would be constructed in conformance with the S.F. Building Code and in compliance with the recommendations of the project's structural and soils engineers. ° Local streets adjacent to the project would be swept daily to prevent siltation of storm drains.		
ENERGY		
° The heating, ventilating, air-conditioning, insulation and electrical systems would be designed to minimize energy consumption. ° Energy conservation features would include insulation of exterior walls and roof, sealing of the building envelope, variable volume air conditioning, an economizer cycle on air systems permitting the use of outside air for space conditioning when temperatures are appropriate, dual level lighting controls and recessed fixtures.	° Storage containers could be provided for the collection and storage of recyclable solid wastes such as glass, metal, computer cards, newspapers, etc., if space permits when building plans are finalized. ° Other energy conservation features which could be included in the project after further study by the project architects include centralized lighting control, variable volume heating and chilled water piping and automatic reduction permiter zone lighting activated by light-sensitive photo cells.	° Separate metering of tenant space could reduce energy consumption. This was rejected by the project sponsors due to high costs charged by the utilities and the untaxable rate structure for tenants ° The use of solar energy for heating could reduce energy consumption. This measure was rejected as infeasible due to the lack of sufficient surface area for collection panels to meet heating requirements.
COMMUNITY SERVICES		
° A building information/security desk would be established in the lobby of the office tower to provide building security and information services.	° An internal security system including such elements as closed circuit television cameras, electronic card access, etc. could be proviced to reduce crime incidents. The project sponsor is investigating the feasibility of such systems.	

TABLE 13 (CONTINUED)

MEASURES TO BE INCLUDED IN THE PROJECT	MEASURES RECOMMENDED AND/OR UNDER CONSIDERATION	MEASURES REJECTED (AND REASONS FOR) REJECTION)
° A stationary trash compactor would be used to reduce the frequency of collection at the site.		
° The project design would incorporate fire protection measures required by the S.F. Building Code. The project sponsor would meet with the fire marshall to discuss the building design and additional fire protection measures.		
ECONOMIC/FISCAL		
° Affirmative action and equal opportunity policies would be applied to all construction contractors and sub-contractors as required by law.		° Relocation assistance could be provided to displaced tenants. This measure was rejected by the project sonsor as being too costly and beyond the provisions and obligations of the short-term leases.
GROWTH INDUCEMENT	The project sponsor could make available financial assistance for or otherwise cause the construction and/or rehabilitation of housing units in San Francisco through its subsidiary Citicorp Community Development Inc. or in conjunction with interested housing developers to alleviate the net increase in housing demand attributable to the proposed project as a result of on-site employment increases. The appropriate methods and number would be determined in cooperation with the Department of City Planning.	

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

A. HISTORICAL/CULTURAL

The project would require complete or partial demolition of two buildings. The One Sansome Building (Anglo and London Paris National Bank) was rated "5" by the Department of City Planning in its Inventory of Architecturally Significant Buildings and "A" by the Foundation for San Francisco's Architectural Heritage in its downtown building inventory, Splendid Survivors. The Holbrook Building (58 Sutter) was rated "3" in the Inventory of Architecturally Significant Buildings and "B" in Splendid Survivors. The loss of One Sansome (Anglo and London Paris National Bank) would reduce the number of monumental banks in the Financial District, and would contribute incrementally to the loss of architecturally and historically significant buildings in the downtown area.

B. URBAN DESIGN

The project would be taller and more visually prominent than existing structures on the site. It would be visible in the City skyline from higher elevations to the east and south.

C. TRANSPORTATION

Truck movements during construction would temporarily conflict with traffic along haul routes. The project would increase local transit ridership and load factors by approximately 2.5%. Pedestrian service levels would be reduced along adjacent sidewalks and at crosswalks in the vicinity of the site. The project would generate a demand for 690 long-term and 205 short-term parking spaces.

D. CLIMATE AND AIR QUALITY

Windspeeds under westerly wind conditions would increase at the southwest corner of the Sansome-Sutter-Market intersection. During northwest winds, there would be an increase in speed along the north side of Sutter Street.

The project would shade a strip across Sansome Street and along part of the northwest corner of the Crown-Zellerbach Plaza during the fall and spring. In summer, the project would shade a larger portion on Sansome Street and a strip along the western edge of the public entry court.

Construction activity would temporarily increase airborne dust in the project vicinity. Project-generated traffic and traffic from cumulative downtown development would increase emissions of air pollutants and impede attainment of air quality standards.

E. NOISE

Construction noise would affect daytime office workers in neighboring office buildings causing intermittent work interference. Pedestrians at street level would have difficulty in maintaining normal conversation.

F. ENERGY

During operation, the project would require about 11.4 million kilowatt hours of electricity per year, generated primarily from nonrenewable fossil fuels, and about 28.1 Billion BTU's of natural gas per year.

G. ECONOMIC AND FISCAL

The project would result in a net increase of approximately 657,600 gross square feet of floor area and 2,700 employees on the site. Project construction would provide about 600 person years of construction labor. The net increase in on-site employment would contribute to increased housing demand for about 600 units.

H. CUMULATIVE DEVELOPMENT

The project would contribute incrementally to cumulative traffic, transit, visual, air quality, housing and community service impacts produced by development under construction and proposed in the downtown business area.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

Citicorp, the project sponsor, has considered a number of alternatives to eliminate or reduce adverse impacts of the proposed project, while still meeting its basic objectives. Redesign of the project as originally proposed has already occurred in order to address adverse impacts associated with regard to the loss of historically and architecturally significant buildings on the site. The proposed project represents the product of numerous design studies, including seven separate historic preservation schemes originally investigated in an effort to preserve all or distinctive elements of the existing One Sansome building.[1] Project alternatives have all focused on the use of the same site, as other sites

[1]The seven historic preservation schemes included: (1) complete preservation of One Sansome and construction of a new 35-story square office tower on the site of 58 Sutter, partially cantilevered over One Sansome; (2) partial demolition of One Sansome, preserving its facades and interior banking hall, with construction of an adjoining 39-story rectangular office tower to the west; (3) partial demolition of One Sansome, preserving the facade and interior banking hall and construction of an adjoining 35- story rectangular office tower partially cantilevered over it; (4) retention of the Sansome Street facade and disassembly of the interior banking hall and Sutter Street facade of One Sansome with reassembly within and around a new 33-story rectangular office tower; (5) retention of the full facade of One Sansome along Sutter and Sansome Streets to create a base for a new 34-story rectangular office tower; (6) retention of the full facade of One Sansome along Sutter and Sansome to create a monumental base for a new 34-story rectangular office tower with continuation the arched facade along Sutter Street; and (7) retention of the Sansome Street facade of One Sansome to create a base along Sansome Street for a new 37-story rectangular office tower with demolition of the Sutter Street facade for a new tower base. These seven schemes are on file and available for review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

were limited and locations outside of San Francisco's Financial District were determined unsuitable for the sponsor's needs.

The previous preservation studies have been refined to form the basis of two preservation alternatives discussed below. The preservation alternatives focus on efforts to preserve all or portions of One Sansome, as it is rated higher than the Holbrook Building in both the Inventory of Architecturally Significant Buildings and Splendid Survivors. Preservation of both buildings would be equivalent to the "no project" alternative. One additional alternative conforming to the recently enacted interim downtown controls[1] and the "no project" alternative required by the California Environmental Quality Act (CEQA) are also discussed. The following sections describe the basic features of these four project alternatives and present reasons for their rejection by the project sponsor. Building dimensions and floor areas for the proposed project and alternatives are compared in Table 14, page 166. The environmental impacts of each alternative are described and compared to those of the proposed project in Table 15, page 167.

A. ALTERNATIVE 1: COMPLETE PRESERVATION OF ONE SANSOME

This alternative would involve complete preservation of the existing One Sansome Building with demolition of the Holbrook Building and construction of a 38-story to 46-story square office tower on the site. The tower would cantilever 25 feet over the existing One Sansome Building, with an indentation at the base of the new tower to minimize design and scale conflicts between the new and existing buildings. The height

[1]San Francisco Ordinance No. 240-80 amending Section 126, 1 July 1980.

of the tower would be from 530 feet to 600 feet, or from 25 feet lower to 40 feet higher than the proposed project, depending on final decisions on location of mechanical equipment and ability to provide adequate elevator capacity. The gross floor area, including the existing building, would be approximately 529,000 square feet, to a maximum of 655,100 square feet, or from 280,000 square feet to 73,000 square feet less than the proposed design. The tower would have a typical floor size of 14,160 gross square feet with an occupiable area of 11,900 square feet per floor. No retail or public open space would be provided. Elevations and the ground floor plan for this alternative are shown in Figures 53-55.

This alternative would completely preserve the existing One Sansome Building. It has been rejected by the project sponsor due to the smaller floor size, reduced obtainable rents, additional construction cost of the cantilever, necessity for Citicorp's occupancy to be spread over additional floors, reduced proportion of leasable office space to the gross building area, and poor relationship to the Equitable and Standard Oil Buildings compared to the proposed project. In addition, the project architects and the sponsor do not believe that the relationship between the existing building and the new tower would be aesthetically attractive. It is also likely that portions of the existing building would have to be dismantled and reassembled after construction of the new tower.

B. ALTERNATIVE 2: PRESERVATION OF THE ENTIRE FACADE OF ONE SANSOME

This alternative would preserve both the Sansome and Sutter Street facades of the existing One Sansome Building with construction of a 40-story rectangular office tower similar to the proposed project. The tower would be of the same dimensions as the proposed project. It would consist of approximately 728,000 gross square feet with a typical floor

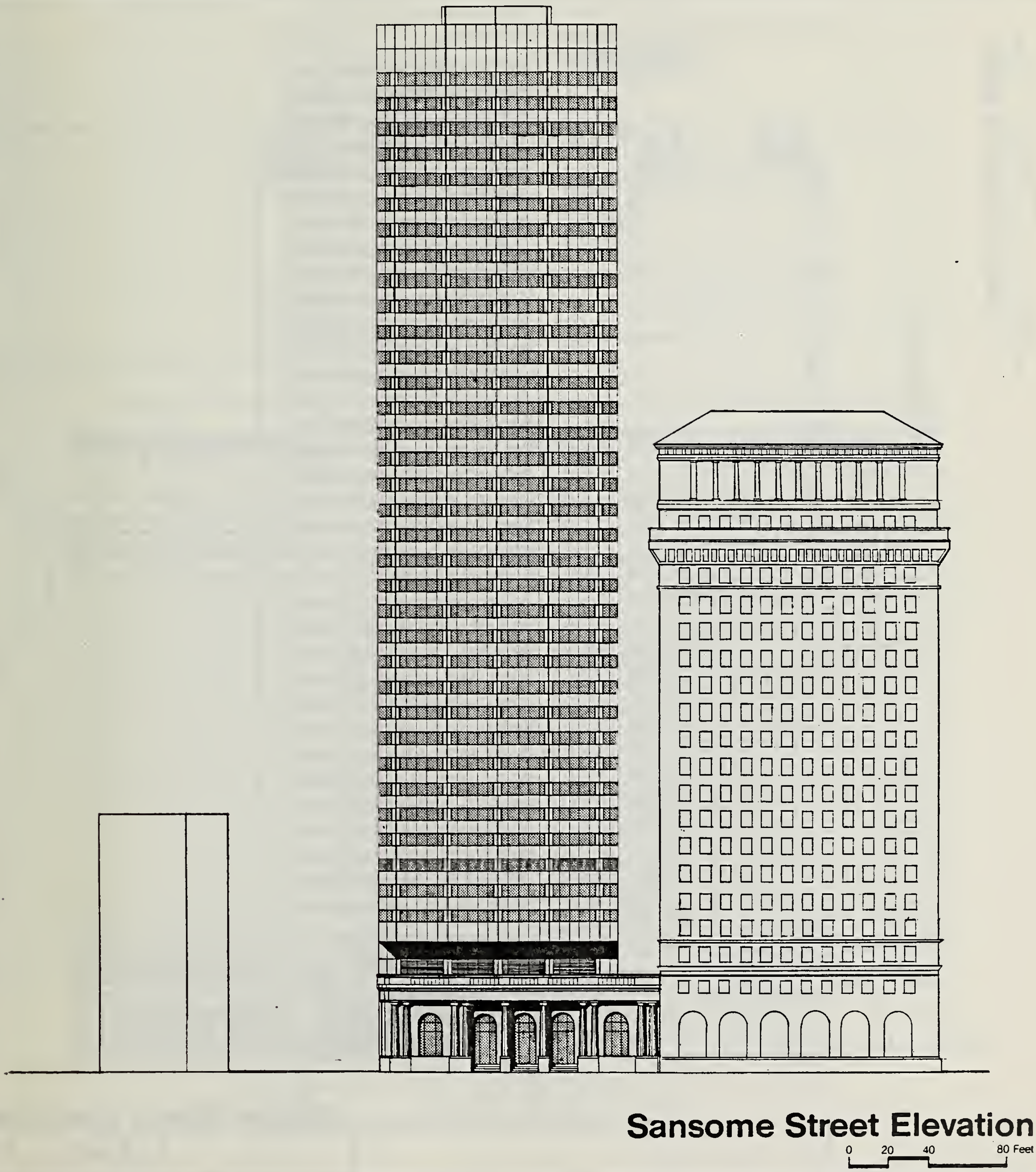
area of 19,700 square feet and a retail arcade and public entry court along Sansome Street enclosed by the retained facade

figure 53

ALTERNATIVE 1

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

PRESERVATION OF EXISTING
ONE SANSOME BUILDING



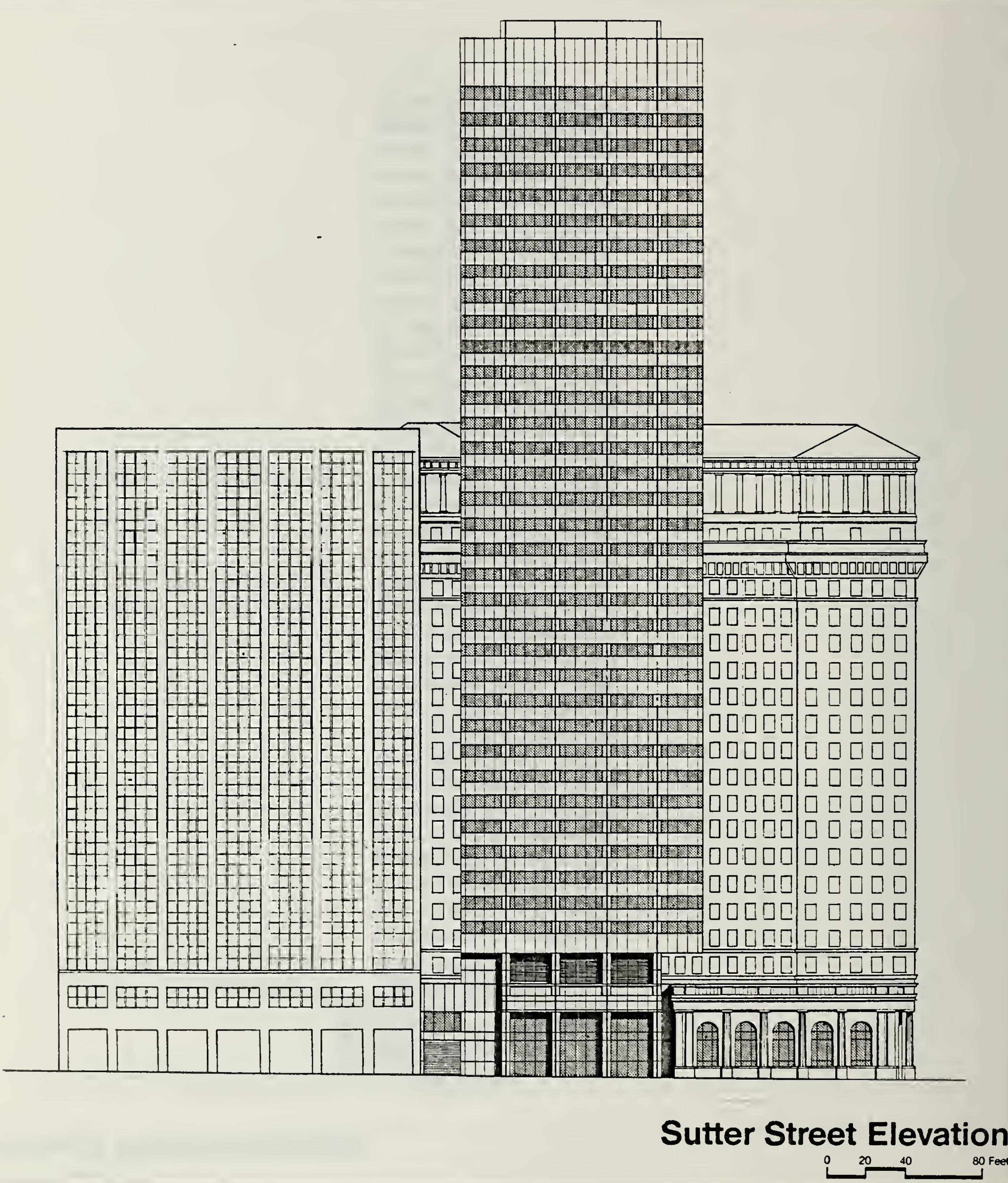
Sansome Street Elevation

figure 54

ALTERNATIVE 1

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

PRESERVATION OF EXISTING
ONE SANSOME BUILDING



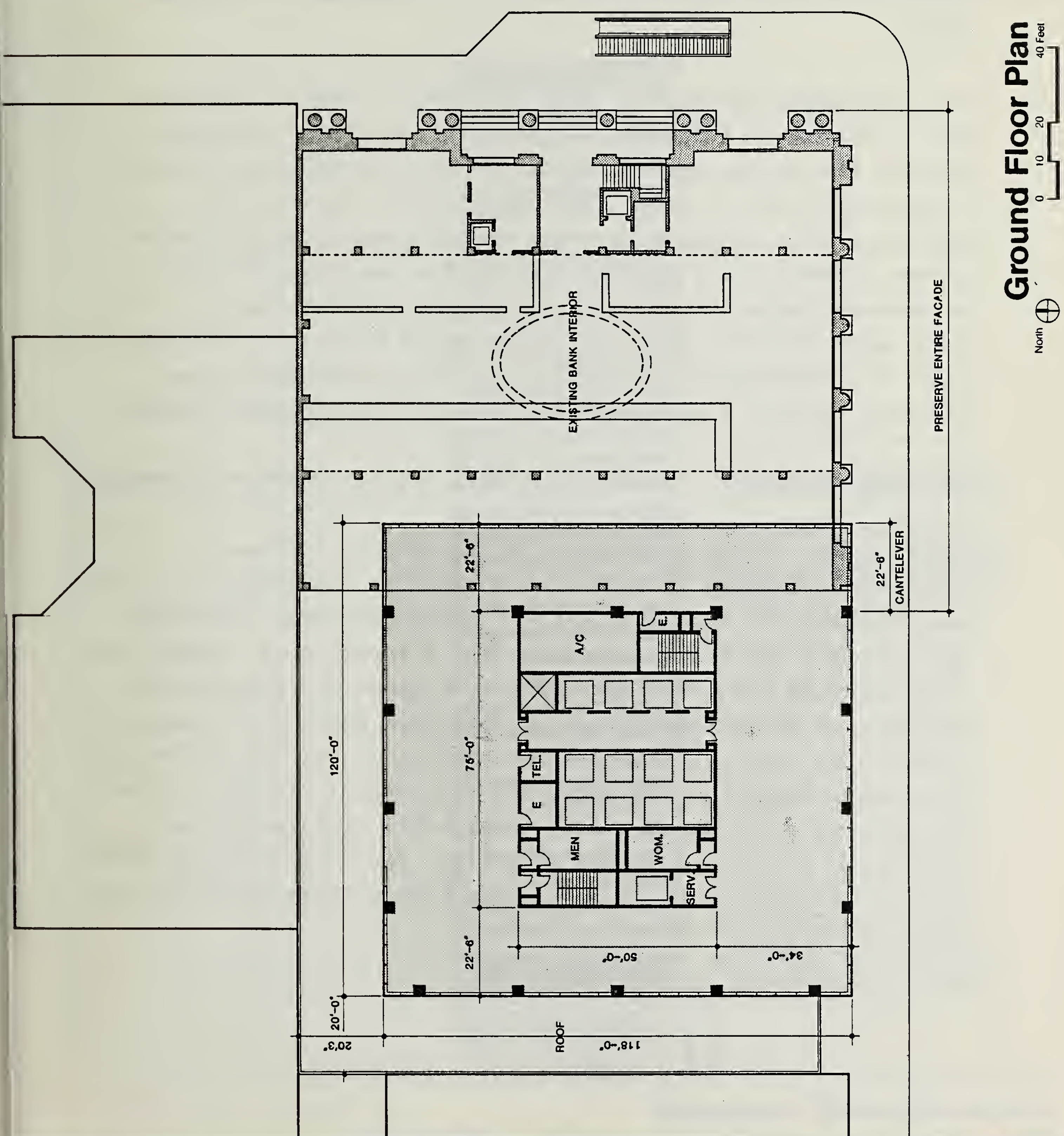
Sutter Street Elevation

figure 55

ALTERNATIVE 1

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

PRESERVATION OF EXISTING
ONE SANSOME BUILDING



elements. The new tower would be cantilevered over the Sutter Street facade, which would be retained as a free-standing element in front of the tower's lobby. Elevations and the ground floor plan for this alternative are shown in Figures 56-58.

The architects and project sponsor rejected this alternative due to the awkward design relationship perceived to result between the Sutter Street facade and the new tower and because of the additional cost of cantilevering the tower. In addition, this scheme would require the removal of the Sutter Street facade during construction of the new tower and its subsequent restoration. As a result, the sponsor and architects believe that this scheme would be less consistent with the preservation of key elements of One Sansome as an integral part of a new project than would the proposed project.

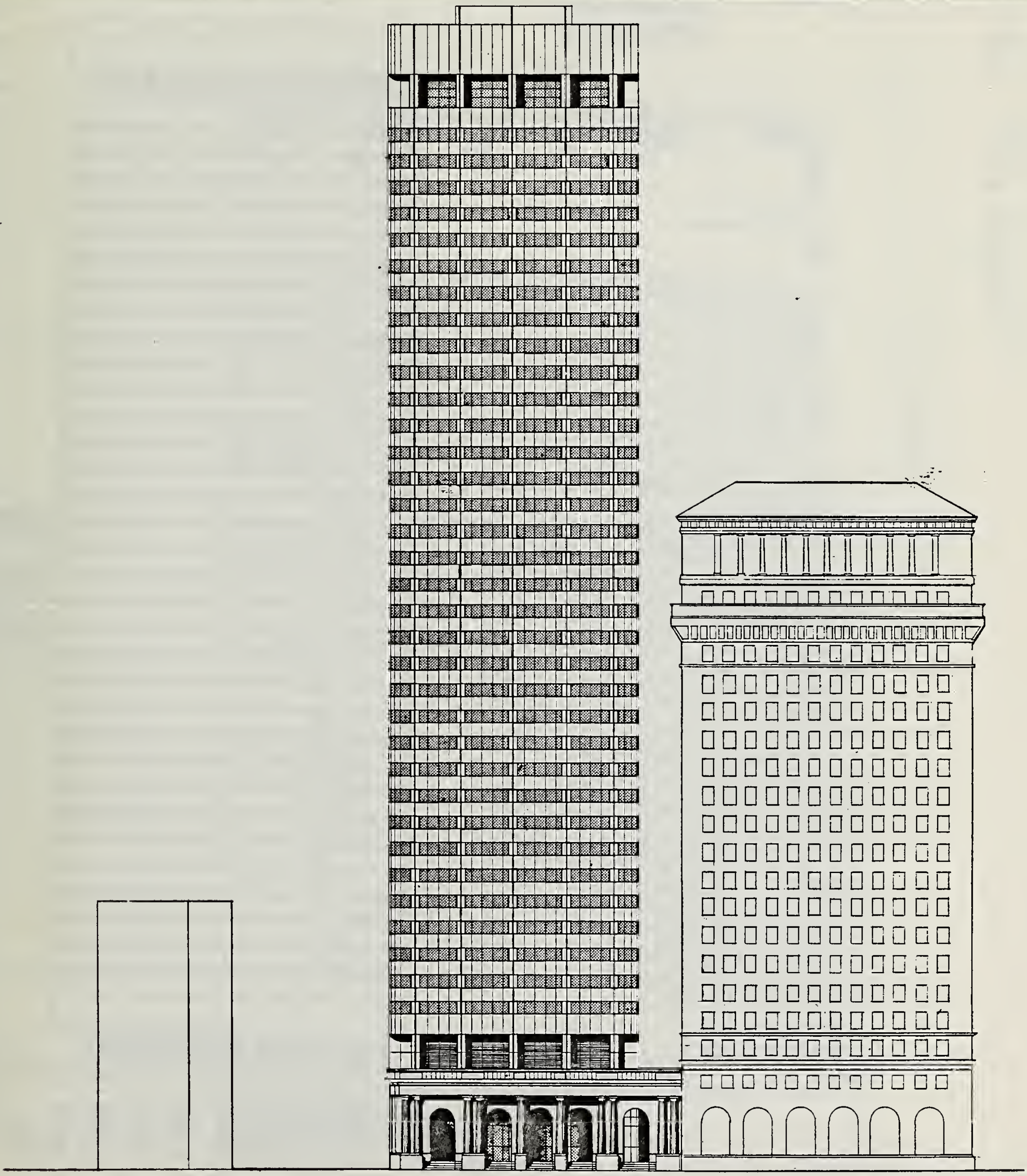
C. ALTERNATIVE 3: CONFORMANCE WITH INTERIM DOWNTOWN CONTROLS

This alternative would conform to the interim downtown controls. Although the proposed project is not subject to the new regulations, this alternative is presented for comparison of impacts. The San Francisco Board of Supervisors amended the City Planning Code on 1 July 1980 to suspend for one year the application of Section 126 which permitted bonus floor areas to be added to the basic floor area in exchange for the inclusion of certain amenitites as part of a development project. Under the interim controls, the floor area ratio (FAR) would be limited to 14:1 in the C-3-0 district. The maximum gross floor area which could be developed on the site without bonuses would be 474,000 square feet.

figure 56 **ALTERNATIVE 2**

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

FULL FACADE PRESERVATION



Sansome Street Elevation

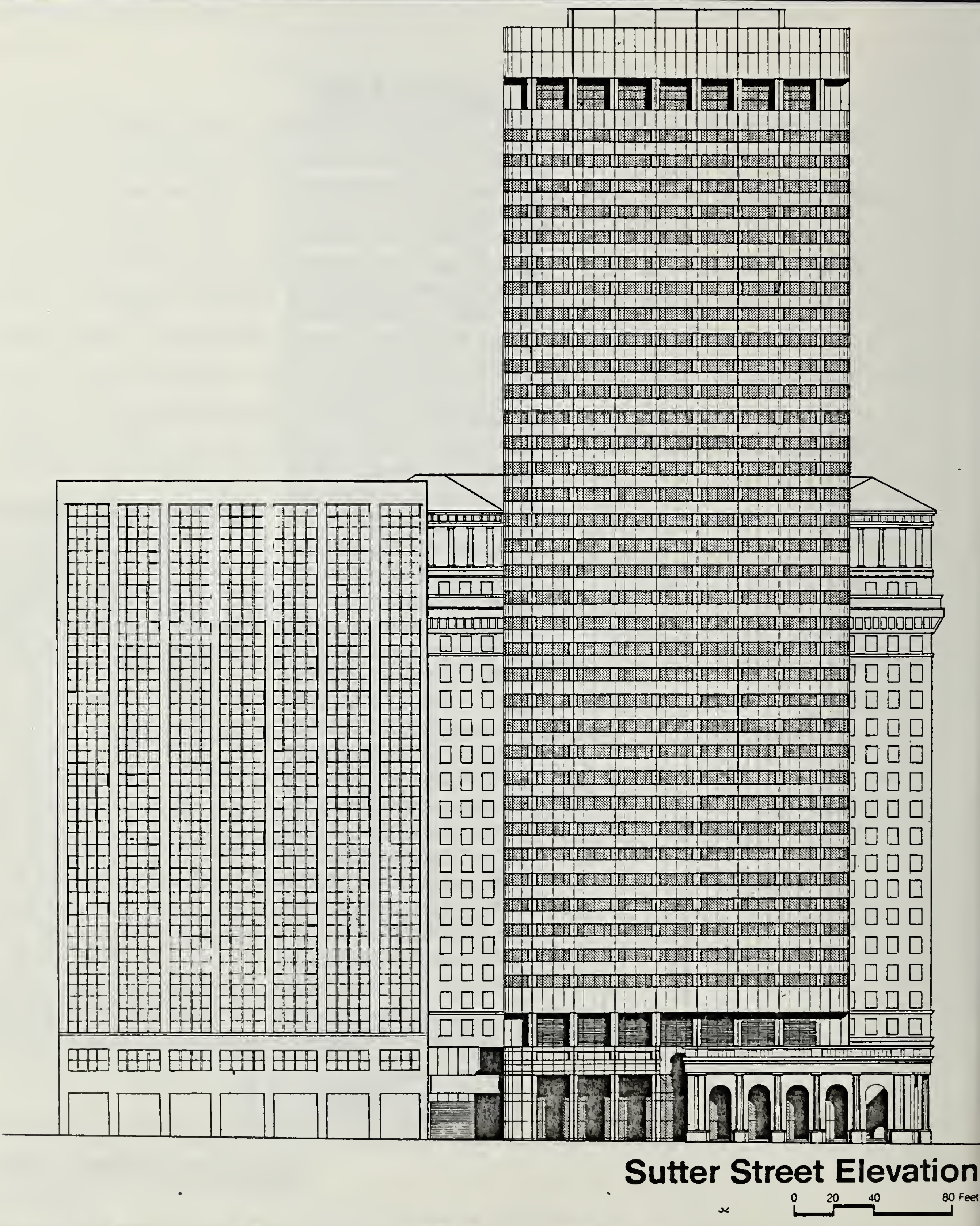
0 20 40 80 Feet

figure 57

ALTERNATIVE 2

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

FULL FACADE PRESERVATION



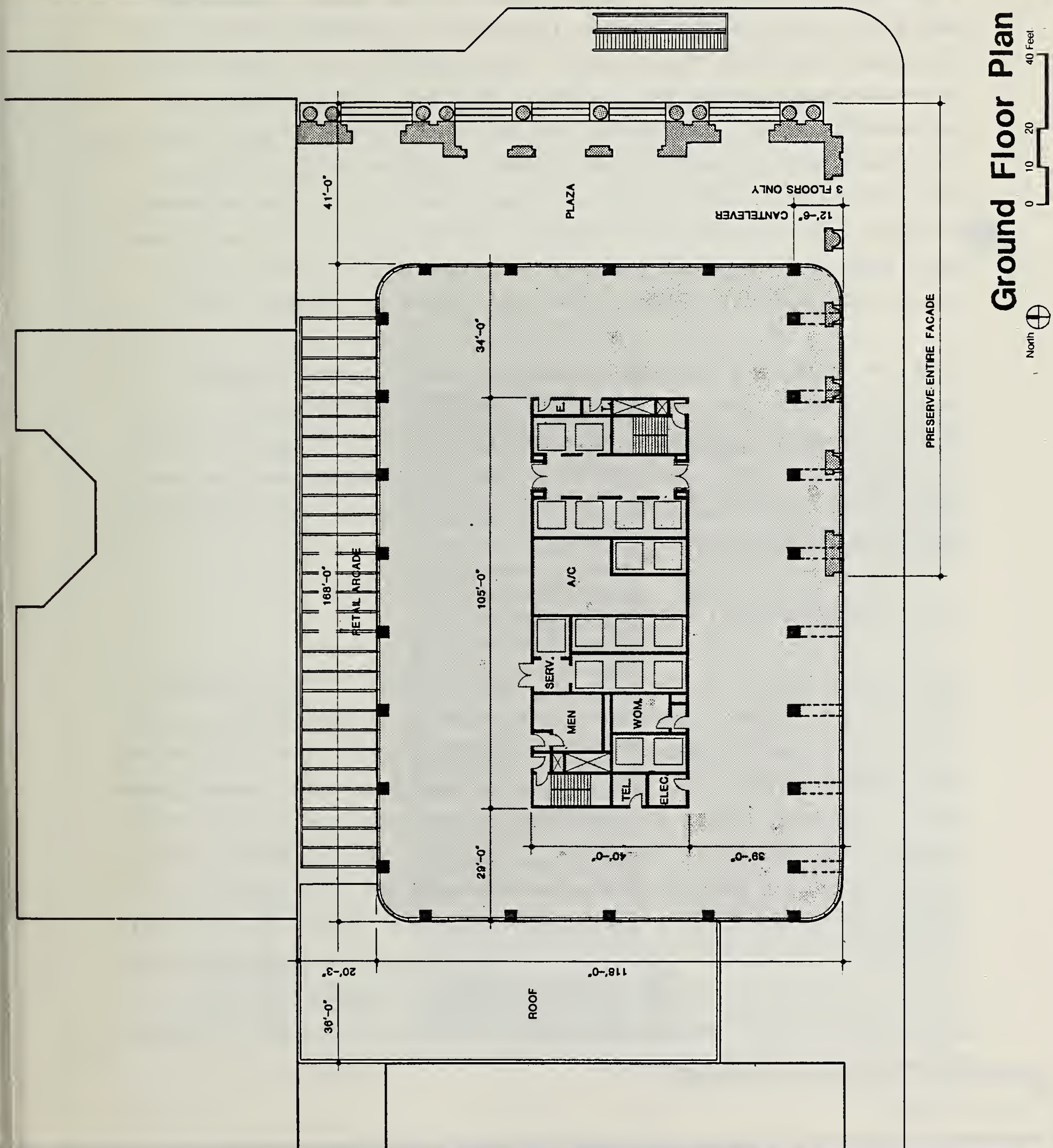
Sutter Street Elevation

figure 58

ALTERNATIVE 2

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

FULL FACADE PRESERVATION



Under such constraints, the sponsor would propose demolition of both the One Sansome and Holbrook Buildings and construction of a 24-story rectangular office tower on the site. The tower would be sited at the corner in order to maximize light, air, views and building floor area. The height of the tower would be approximately 380 feet, about 180 feet shorter than the proposed project. A retail arcade at the ground floor would be included, but no public open space. Typical office floors would consist of 19,700 gross square feet as in the proposed project. This alternative would contain about 1/3 less floor area than the proposed project. Elevations and the ground floor plan for this alternative are shown in Figures 59-61.

Were the proposed project subject to the interim downtown controls, this alternative would probably be pursued. According to the sponsor, preservation of all or part of the One Sansome Building would not be economically feasible with the reduced building size and corresponding need to maximize floor size and views.

D. ALTERNATIVE 4: NO PROJECT

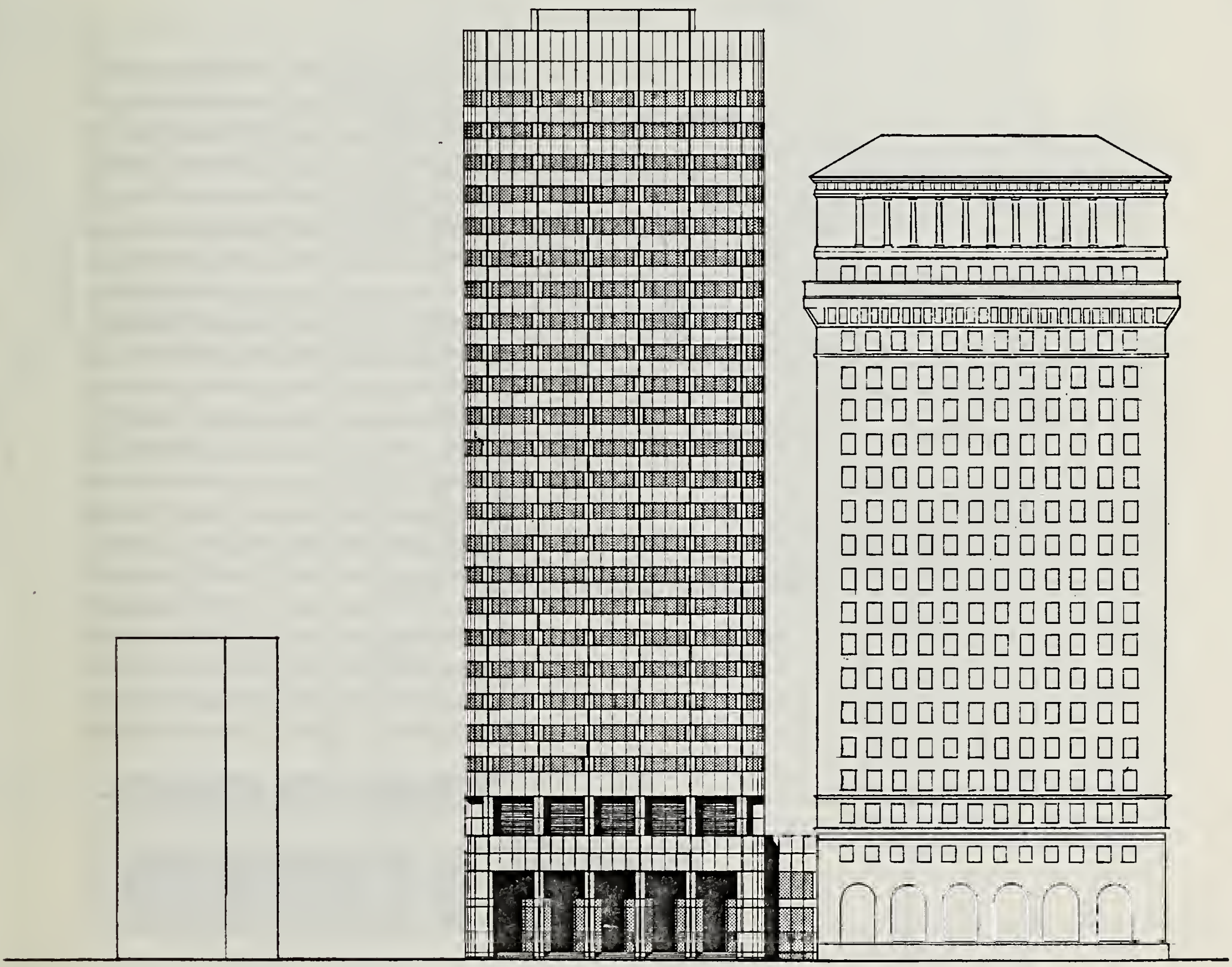
This alternative, as defined by the California Environmental Quality Act (CEQA) would entail no change to the project site as it now exists. The two existing buildings, One Sansome and the Holbrook Building, would both be retained and present uses would continue. This alternative would preserve options for future development of the site. However, market demand for office space is such that the site could not be expected to remain with the present buildings and uses indefinitely. This alternative was not acceptable to the project sponsor because future development costs would probably increase and the alternative would not provide for current and projected space needs for Citicorp employees.

figure 59

ALTERNATIVE 3

COMPLETE DEMOLITION AND CONFORMANCE WITH INTERIM CONTROLS

Source: WILLIAM L PEREIRA ASSOCIATES PLANNERS · ARCHITECTS · ENGINEERS



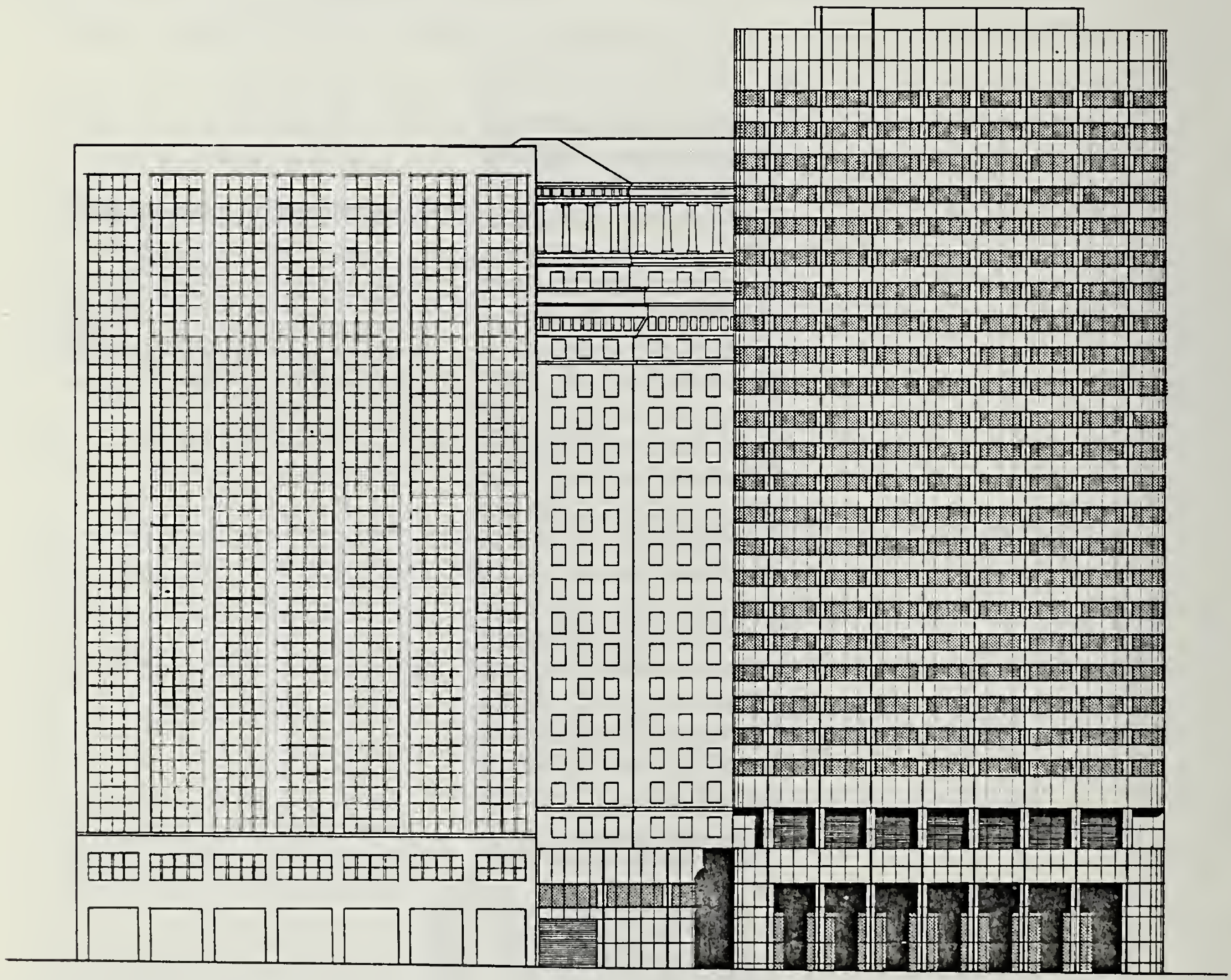
Sansome Street Elevation

0 20 40 80 Feet

ALTERNATIVE 3

COMPLETE DEMOLITION AND CONFORMANCE
WITH INTERIM CONTROLS

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS



Sutter Street Elevation

0 20 40 80 Feet

figure 61

ALTERNATIVE 3

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

COMPLETE DEMOLITION AND CONFORMANCE
WITH INTERIM CONTROLS

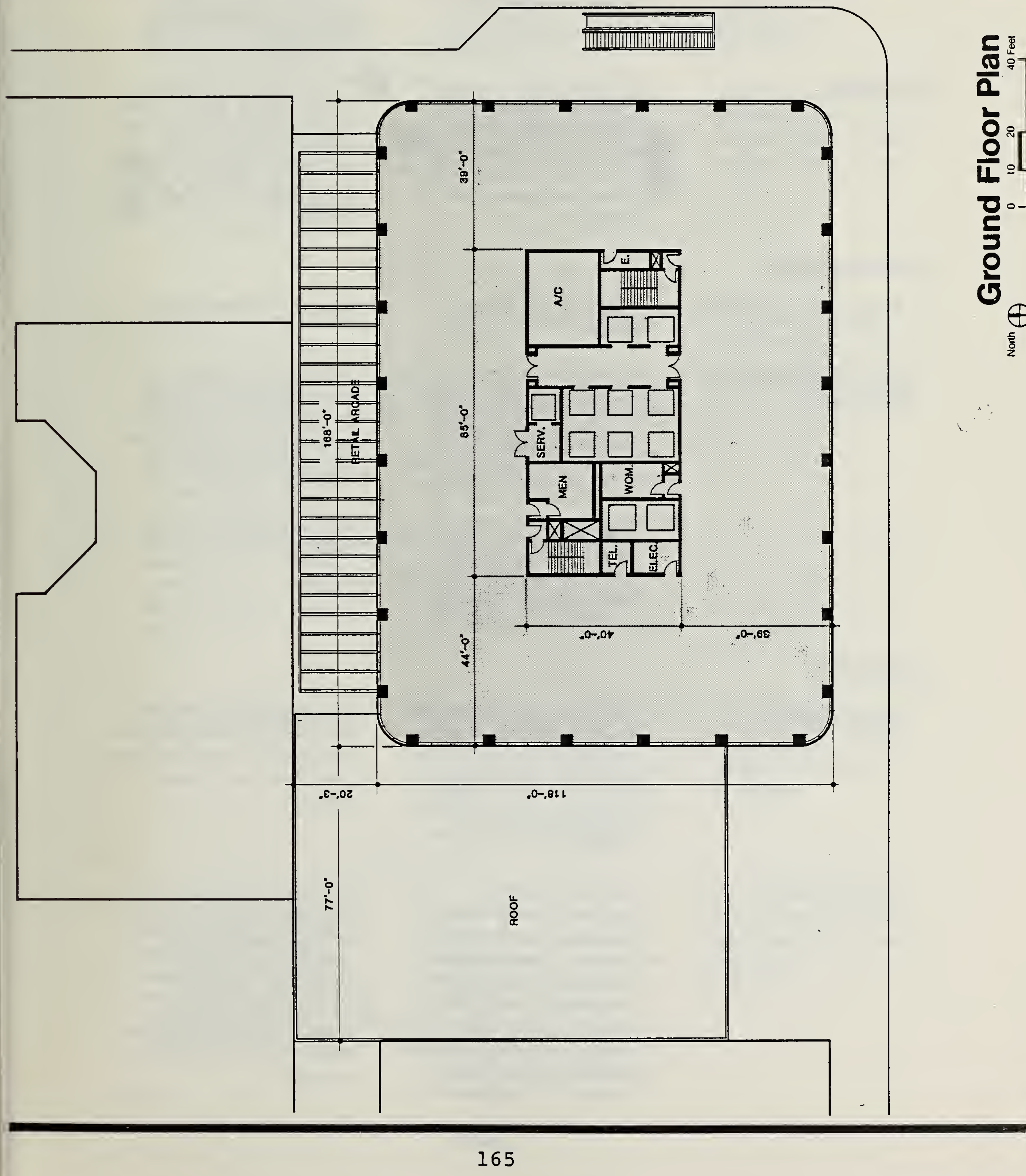


TABLE 14

COMPARATIVE IMPACT STUDY

	PROPOSED PROJECT	ALTERNATIVE 1: Complete Preservation of One Sansome
DESCRIPTION	40-story office tower, 560 ft. high; ground floor retail arcade; outdoor public entry court enclosed by retained facade; 728,200 gross floor area; FAR 21.5:1.	38 to 46-story office tower, 530 to 600 ft. high; cantilevered over existing One Sansome Building; 529,000 to 655,000 gross floor area; FAR, 15.6:1 to 19.3:1.
HISTORICAL/CULTURAL		
° Archaeological Resources	Little or no expected effect.	Same as Proposed Project.
° Historical/Architectural Resources	Would require demolition of the Holbrook Bldg, rated "3" in the Inventory of Architectecturally Significant Buildings and "B" by the Heritage Inventory.	Would require demolition of the Holbrook Bldg, rated "3" in the Inventory of Architecturally Significant Buildings and "B" by the Heritage Inventory.
	Preservation of the Sansome Street and part of the Sutter Street facade of One Sansome Bldg. Elimination of interior banking hall.	Full Preservation of One Sansome.
URBAN DESIGN		
° View Protection	The tower would block some views of the Bay from the Equitable Bldg and to the south from the Standard Oil Bldg. Building setbacks would minimize view disruption.	View disruption from the Standard Oil Bldg and into the latter's court would be less than the proposed project.
° Building Design	The tower would be basically rectilinear in shape and would have horizontal and vertical elements similar to the Standard Oil Bldg, with about the same color. The facade of the existing One Sansome Bldg would be retained to maintain the	The tower would be basically square in shape with a visually and structurally awkward cantilever over the existing One Sansome Bldg. It would have less bulk than the proposed project.

ALTERNATIVE 2: Preservation of the Entire Facade of One Sansome	ALTERNATIVE 3: Conformance with Interim Downtown Controls	ALTERNATIVE 4: No Project
40-floor office tower. 560 ft. high; ground floor retail arcade; outdoor public **entry court** enclosed by retained facade elements; **728,200 gross floor area; FAR 21.5:1.**	26-story office tower 380 ft. high; ground floor retail arcade; **474,000 gross floor area; FAR 14:1.**	Existing buildings: One Sansome, Crocker Bank; Holbrook Bldg, 7 floors office, ground floor retail.
Same as Proposed Project.	Same as Proposed Project.	No effect. No new construction.
Would require demolition of the Holbrook Bldg, rated "3" in the Inventory of Architectecturally Significant Buildings and "B" by the Heritage Inventory. Preservation of the full facade along Sansome and Sutter of the One Sansome Bldg. Elimination of the interior banking hall.	Would require demolition of the One Sansome Bldg, rated "5" by the Inventory of Architecturally Significant Buildings and "A" by the Heritage Inventory; and the Holbrook Bldg, rated "3" by the Inventory of Architecturally Significant Buildings and "B" by the Heritage Inventory.	No demolition. No new construction.
Same as proposed project.	View disruption from the Standard Oil Bldg and into its interior court would be greater than the proposed project due to the lack of setback along Sansome Street.	View blockage would be negligible due to low heights of existing buildings.
Same as proposed project except the full facade along Sutter would be preserved as a free-standing element, with the tower cantilevered over the existing facade.	The tower would be basically rectilinear in shape and would be shorter than the proposed project. The alternative would provide a street level facade less consistent with the Standard Oil Bldg.	The existing buildings would continue to occupy the site.

TABLE 14 (CONTINUED)

	PROPOSED PROJECT	ALTERNATIVE 1: Complete Preservation of One Sansome
	uniform street facade along Sansome Street created by the arches of the Standard Oil Bldg and One Sansome. The rhythm created by the columned facade would be continued by the arcade and vertical elements of the new tower.	
• Pedestrian Amenities	The project would provide a retail arcade and a public entry court with seating, sculpture, fountains and fern trees enclosed by the retained facade elements.	Existing banking services in the One Sansome Bldg would continue, but the alternative would provide no retail space, public open space or other pedestrian amenities.
• Project Visibility	The tower would be comparable in height to other downtown high-rise buildings and would not be particularly prominent in the City skyline. Portions of the tower would be visible from some higher elevations in the City. It would be a prominent element in the local visual setting at the foot of Sansome Street.	Same as proposed project.
LAND USE/ZONING		
• Intensity of Development	The project would increase the intensity of development on the project block to practical limits of permissible densities.	The alternative would increase the intensity of development less than the proposed project. The One Sansome Bldg would remain.

ALTERNATIVE 2: Preservation of the Entire Facade of One Sansome	ALTERNATIVE 3: Conformance with Interim Downtown Controls	ALTERNATIVE 4: No Project
Same as proposed project.	The alternative would provide a retail arcade, but no public entry court or other pedestrian amentities.	Existing retail uses would continue, but the site would offer no public open space and few other pedestrian amenities.
Same as proposed project.	The tower would be shorter than other downtown high-rise buildings and comparable in height to the Standard Oil Bldg to the north and Equitable Bldg to the west. It would generally not be visible in the City skyline.	Existing building on the site are generally lower in height than surrounding development and are not visible from long-range viewpoints.
Same as proposed project.	The alternative would increase the intensity of development less than the proposed project. Future development would be effectively precluded.	Existing buildings on the site would remain. Probable future development of the site would still be for high-rise offices.

TABLE 14 (CONTINUED)

	PROPOSED PROJECT	ALTERNATIVE 1: Complete Preservation of One Sansome
° Zoning	The project would comply with all existing zoning, height, bulk and FAR regulations. Interim downtown controls do not apply to the proposed project.	Same as proposed project.
TRANSPORTATION		
° Travel Demand	The project would generate approximately 11,300 personal trip ends per day.	The alternative would generate about 16 to 30% less personal trip ends per day.
° Project Construction	Traffic on Sutter would be disrupted intermittently by trucks entering and leaving the site during the 2 years of project construction.	Same as proposed project.
° Traffic	The project would generate approximately 3,000 vehicle trip ends per day and about 32,000 vehicle miles traveled. The project would not change vehicle levels of service at any neighboring intersection.	The alternative would generate 16 to 30% less vehicle trip ends and vehicle miles traveled than the proposed project.
° Parking	The project would generate daily demand for approximately 900 new parking spaces.	The alternative would generate 16 to 29% less new parking demand than the proposed project.
° Transit	The project would generate approximately 6300 new daily trips on transit systems. About 20%, or 1400 trips, would occur during the p.m. peak hour.	The alternative would generate 29% less new daily and p.m. peak hour person-trips on transit than the proposed project.

ALTERNATIVE 2: Preservation of the Entire Facade of One Sansome	ALTERNATIVE 3: Conformance with Interim Downtown Controls	ALTERNATIVE 4: No Project
Same as proposed project.	The alternative would comply with all existing zoning, height,bulk and FAR regulations. It would also comply with Interim downtown controls although they do not apply to the proposed project.	Existing buildings on the site comply with all existing zoning, height, bulk and FAR regulations.
Same as proposed project.	The alternative would generate 33% less personal trip ends per day.	No effect. No new construction
Same as proposed project.	Same as proposed project.	No effect. No new construction.
Same as proposed project.	The alternative would generate 33% less vehicle trip ends and vehicle miles traveled than the proposed project.	No effect. No new construction.
Same as proposed project.	The alternative would generate 33% less new parking demand than the proposed project.	No effect. No new construction.
Same as proposed project.	The alternative would generate 33% less new daily and p.m. peak hour person-trips on transit than the proposed project.	No effect. No new construction.

	PROPOSED PROJECT	ALTERNATIVE 1: Complete Preservation of One Sansome
• Pedestrians	The project would generate more pedestrian traffic on Sutter and Sansome Street sidewalks immediately adjacent to the project site. Pedestrian congestion would increase during the mid-day and p.m. peak hours.	Pedestrian traffic and congestion would be less than the proposed project, although it would be greater than the existing level.
CLIMATE/AIR QUALITY		
• Wind	The project would increase west and northwest winds along Sutter Street. Windspeeds elsewhere generally would not change.	Similar to the proposed project.
• Air Quality	During the 2 year construction period, the project would result in increased dust, construction vehicle and equipment emissions. Project-generated traffic emissions would contribute to local and regional accumulations of carbon monoxide, hydrocarbons, nitrogen oxides, particulates and sulfur oxides during inversions.	Same as proposed project.
• Shadow Patterns	The project would shade a strip across Sansome Street and along a part of the northwest corner of the Crown-Zellerbach Plaza at mid-day in the fall and spring. During summer the project would shade a larger portion of Sansome Street and a strip along the western edge of the plaza.	The alternative would shade a strip along the western side of Sansome Street at mid-day in the summer. It would have no effect on shadow patterns at other times.

ALTERNATIVE 2: Preservation of the Entire Facade of One Sansome	ALTERNATIVE 3: Conformance with Interim Downtown Controls	ALTERNATIVE 4: No Project
Same as proposed project.	Pedestrian traffic and congestion would be less than the proposed project, although it would be greater than existing levels.	No effect. No new construction.
Similar to the proposed project.	Similar to the proposed project.	Northwest wind speeds range from low to moderate in the vicinity of the project site. West winds range from moderate to high along Sutter Street.
Same as proposed project.	Same as proposed project.	Little or no effect. No new construction.
Same as proposed project.	The alternative would shade a slightly larger strip than the proposed project across Sansome Street and along the northwest corner of the Crown-Zellerbach Plaza at mid-day in the fall and spring. During summer, it would shade most of Sansome Street but not the Crown-Zellerbach Plaza.	No effect. No new construction.

TABLE 14 (CONTINUED)

	PROPOSED PROJECT	ALTERNATIVE 1: Complete Preservation of One Sansome
NOISE		
• Construction Noise	During the 12 months of demolition, excavation, foundation and erection of the building structure, construction noise would annoy pedestrians and occupants of nearby buildings.	Same as proposed project.
GEOLOGY/SEISMICITY		
• Seismic Hazard	Strong ground shaking would cause the building to sway, but probably not collapse; some exterior damage might occur.	Hazard due to lack of seismic reinforcement unless One Sansome was to be brought up to code through renovation. Same as proposed project for new tower.
ENERGY		
• Construction	Direct energy consumption during project construction would be about 1.67 million KWH of electricity and 84,000 gallons of vehicle fuel.	Slightly less than the proposed project, because of less construction, smaller building.
• Connected Kilowatt Load	8,580 Kilowats	Similar to the proposed project.
• Average Daily Gas Consumption BTU/sq. ft.	110 BTU/sq.ft	Slightly less than the proposed project because of smaller size.
• Average Monthly KWH/sq.ft.	1.16 KWH/sq.ft.	Slightly less than the proposed project because of smaller size.

ALTERNATIVE 2: Preservation of the Entire Facade of One Sansome	ALTERNATIVE 3: Conformance with Interim Downtown Controls	ALTERNATIVE 4: No Project
Same as proposed project.	Same as proposed project.	No effect. No new construction.
Same as proposed project.	Same as proposed project.	Hazard due to lack of seismic reinforcement of existing buildings.
Similar to the proposed project.	Slightly less than the proposed project because of less construction, smaller building.	No effect. No new construction.
Similar to the proposed project.	Similar to the proposed project.	Data not available.
Similar to the proposed project.	Slightly less than the proposed project because of smaller size.	Data not available.
Similar to the proposed project.	Slightly less than the proposed project because of smaller size.	Data not available.

TABLE 14 (CONTINUED)

	PROPOSED PROJECT	ALTERNATIVE 1: Complete Preservation of One Sansome
COMMUNITY SERVICES		
° Police	Retail-related crime could increase, but would not require any additional police staff.	Slightly less than proposed project because of fewer occupants.
° Fire	Fire Dept. would not require any additional staff or equipment due to the project.	Same as proposed project.
° Water, Sewer, Telephone Services	Slight increase in required services due to increase in scale of development, but would not require additional capacity, equipment or staff to meet project demands.	Slightly less than proposed project.
ECONOMIC/FISCAL		
° Project Employment	3,100	2175 to 2600
° Construction Employment	600 person years	455 person years
° Relocation	Approximately 43 businesses; 360 persons	Approximately 42 businesses; 240 persons
° Property Tax Revenues	$1,110,000	$886,000 to $1,035,000
Housing Demand	On-site employment increases caused by the project could increase housing demand by about 600 units.	On-site employment increased caused by the altnernative could increase housing demand by 400 to 480 units.

ALTERNATIVE 2: Preservation of the Entire Facade of One Sansome	ALTERNATIVE 3: Conformance with Interim Downtown Controls	ALTERNATIVE 4: No Project
Same as proposed project.	Slightly less than proposed project because of fewer occupants.	No effect.
Same as proposed project.	Same as proposed project.	No effect.
Same as proposed project.	Slightly less than proposed project.	No effect.
3100	2075	365
609 person years	376 person years	None
Same as proposed project	Same as proposed project	None
$1,131,000	$750,000	$117,000
Same as proposed project.	On-site employment Increased caused by the alternative could increase housing demand by about 380 units.	The existing housing demand derived from on-site employment is about 80 units. There would be no increase in demand for additional units due to Increased in on-site employment.

TABLE 15
COMPARISON OF KEY INDICATORS: PROPOSED PROJECT AND ALTERNATIVES

	Proposed Project	Alternative 1	Alternative 2	Alternative 3	Alternative 4 No Project: One Sansome	Alternative 4 No Project: Holbrook Building
Gross Constructed Area (Square Feet)	819,700	619,700 - 750,000	819,700	564,000	34,000	118,300
Gross Floor Area, Excluding Mechanical and Basement (Square Feet)	728,200	529,000 - 655,100	728,200	474,000	NA	NA
Floor Area Ratio	21.5:1	15.6:1 - 19.3:1	21.5:1	14:1	NA	NA
Occupiable Floor Space (Square Feet)	621,100	444,400 - 530,800	621,100	419,500	20,000	80,300
° Office	603,700	410,400 - 496,800	603,700	413,000	NA	69,800
° Retail/Banking	17,400	34,000	17,400	6,500	20,000	10,500
Percent Occupiable	85%	84% - 80%	85%	89%	59%	68%
Typical Office Floor (Square Feet)	19,700	14,160	19,700	19,700	NA	11,600
Percent Leasable Office Floor	90%	88% - 86%	90%	93%	NA	69%
Building Dimensions						
° Height (Feet)	559	533 - 608	559	374	36	99
° Length (East-West) (Feet)	168	120	168	168	138	138
° Width (North-South) Feet)	118	118	118	118	123	122
° Diagonal (Feet)	199	168	199	199	NA	NA
Number of Stories	40	38 - 46	40	26	2	7
Estimated Employment at Full Occupancy	3100	2175 - 2600	3100	2075	124	367
Public Open Space	Yes	No	Yes	No	NA	NA
Preservation						
° One Sansome Building	No	Yes	No	No	Yes	NA
° Sansome Street Facade of One Sansome	Yes	Yes	Yes	No	Yes	NA
° Sutter Street Facade of One Sansome	Partial	Yes	Yes	No	Yes	NA
° Holbrook Building	No	No	No	No	NA	Yes
Estimated Construction Costs[1] (Thousands of Dollars)	$62,379	$47,343 - $57,300	$63,438	$39,187	NA	NA
Estimated Construction Costs Per Occupiable Square Foot	$100.43	$106.53 - $107.95	$102.14	$93.41	NA	NA

NA = Not available or not applicable

[1]T. Ray, Swinerton & Walberg Co., letter communication, 31 October 1980

E. VARIATIONS IN ALTERNATIVES

1. Alternative 1A: Complete Preservation of One Sansome and Conformance with Interim Downtown Controls

An alternative which both preserves the existing One Sansome Building and complies with interim downtown controls would be limited to an FAR of 14:1 and a gross floor area of 474,000 square feet. It would consist of a structure similar to Alternative #1, but shorter with most impacts similar to Alternative #3. Impacts with regard to wind, views and shadow patterns would be similar to those of Alternative #1. Impacts derived from building occupancy including traffic, transit, housing, air quality, and noise impacts would be similar to those of Alternative #3.

2. Alternative 1B: Complete Preservation of One Sansome and Provision of On-Site Housing

An alternative with housing on-site and complete preservation of the existing One Sansome Building would consist of a structure similar to Alternative #1, but containing housing in addition to office and banking space. Such an alternative would involve a gross floor area of about 655,000 square feet, based on the permissible floor area. The top 12 floors of the building would be devoted to housing, served by one of the three elevator banks. About 170,000 gross square feet of the building would be used for housing, accommodating approximately 170 dwelling units at 1000 gross square feet per unit, with a maximum population of 340 people at 2 persons per unit on the average. The remaining 485,000 gross square feet would be in office and banking use, or about one-third less than in the proposed project. It would be necessary to provide 43 parking spaces on-site to serve the residential units (at a ratio of 1 space for each 4 units), in order to meet the requirements of Article 1.5, Section 151 of the Planning Code. Provision of

such parking would require excavation for the construction of 2 levels of underground parking, including ramps, under the basement level, as well as relocation of the loading ramps and docks serving the office portion of the building.

Impacts with regard to wind, views, and shadows would be identical to those of Alternative #1. Impacts on regional traffic, transit, parking, air quality, housing and economic and fiscal factors derived from building occupancy for office and banking purposes would be about one-third less than for the proposed project and similar to those for Alternative #1. Impacts on local traffic on streets surrounding the project site could be slightly greater due to the provision of on-site parking and automobile trips by residents; on the assumption that each parked automobile is used for 4 trips per day (2 out, 2 in) primarily for non-work trips during non-peak periods, traffic around the site would not increase substantially, and all streets would remain at Level of Service A. Additional pedestrian trips would be generated by residents making work trips during the morning and afternoon peak periods. On the assumption that 60% of the residents return to the building during the afternoon peak hour, about 200 additional pedestrian trips would be generated during the p.m. peak hour. This increase in pedestrian trips during the peak hour would be about 10% of the 2,169 pedestrian trips which would otherwise be generated by office space under the proposed project (see Table F-18, p. 239. The total number of pedestrian trips generated under this alternative would be approximately 1,630 or 25% less than the 2,169 pedestrian trips generated by the proposed project.

It could be expected that on-site residents would be more likely to use transit and walking to go to work and to make non-work trips, but there is no basis for estimating the probable share of trips by each mode. Those residents using transit to go to and return from work, in virtually all cases,

transit to go to and return from work, in virtually all cases, would be traveling during the peak periods in the reverse direction from the primary commute direction, thereby reducing impacts on peak-hour transit loading due to its downtown location.

Impacts on energy and water consumption could be expected to be slightly higher for residential use than for office use of the same space. Revenues to the City are likely to be slightly lower and fiscal impacts related to transit demand would be negligible.

3. Alternative 1C: Conformance with New Proposals for Regulation of Downtown Development Contained in Guiding Downtown Development

An alternative conforming to new proposals prepared by the Department of City Planning for regulation of downtown development contained in Guiding Downtown Development would be limited to an FAR ranging between 12:1 and 17:1 with a gross floor area ranging from 406,000 to 576,000 square feet. Proposals contained in Guiding Downtown Development establish a base FAR of 12:1 in the present C-3-O district. The base FAR could be exceeded only by:

1. incorporating housing into the project;
2. transferring unused development rights from another site containing a landmark or other significant building; and/or
3. including convenience retail space in the project.

(San Francisco Department of City Planning, Guiding Downtown Development, May 1981, page 3). The maximum FAR with allowances would be 17:1.

An alternative conforming to these new proposals could consist of a structure similar to Alternative #1 with complete preservation of the existing One Sansome Building permitting an FAR of no more than 15:1 and gross floor area of 508,300. The profile of the tower would be slightly more sculptured and articulated as a result of requirements for downward bulk transfer. Impacts would be similar to those described in Alternative #1.

Another alternative conforming to proposals contained in Guiding Downtown Development would consist of a structure limited to an FAR of 12:1 and a gross floor area of 406,600 square feet. The structure would be similar to Alternative #3, but shorter with more sculpturing and articulation of the building form. Impacts derived from building occupancy would be approximately 14% less than those described for Alternative #3. Impacts with regard to winds, views and shadows would be similar to Alternative #3.

VIII. SUMMARY OF COMMENTS AND RESPONSES

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> "The public entry court would be protected from wind and partially covered by a pleated glass roof providing some protection from weather while allowing air and light to filter into the area."

See also responses under topic 9.

2. Historical and Cultural Resources

COMMENTS

Jonathan Malone:

"On Pages 34 and 36, the votes of the Landmarks Board, the City Planning Commission, and the Board of Supervisors on consideration of landmark status for both One Sansome and 58 Sutter should be listed.

On Page 66. On May 29, 1980, the Planning Commission adopted a list of Architecturally and/or Historically Significant Buildings in the Downtown under Resolution 8600. These buildings are not Structures of Merit as defined in Article 10 of the City Planning Code."

Commissioner Bierman

". . . where it talks about landmark status and in that section where it says that the Commission and the Landmarks Board Recommended landmark status and the Board of Supervisors did not, . . . the current developer wasn't involved in that landmarks turndown. But there was at the hearing either a letter or verbal discussion by the previous developer...that every attempt would be made to save or keep a good portion of No. 1 Sansome. If possible, I would like the Board of Supervisors' record on any correspondence to be included in this [Landmarks section] because I personally tried very hard to get landmark status, and I know the Department did and our Chairman was there and as I recall the Mayor and Supervisor Renne felt very strongly about landmark status, particularly for No. 1 Sansome.

I would agree with some of the previous speakers that we need to have more discussion of the interior of the bank."

Gray Brechin:

"On Page 30, there is a description of the interior of One Sansome which is entirely inadequate. Considering that the interior of the building is to be entirely destroyed, that it is one of the largest and most intact banking halls in the west, and that the project will eliminate it from consideration as part of a proposed National Register thematic district of monumental banks in San Francisco, the description of the interior is entirely inadequate. No plan of the building is given nor is there a discussion of the differences between the original interior

by Albert Pissis or the addition by George Kelham. There is a plan on Page 157 as part of an alternative project, but this should be provided in the discussion of the existing building with the rooms labeled.

The artificial travertine of the interior is a reminder of the material from which the 1915 Panama-Pacific Worlds Fair was made, and George Kelham was the supervising architect of that fair...

Much of the original bronze banking furniture remains intact as does the large oval skylight and medallions around the walls. Indeed, the interior of One Sansome is of considerable merit, and the complete loss of it as proposed constitutes a very substantial adverse environmental impact..."

RESPONSE

The votes of individual members of the Landmarks Preservation Advisory Board, City Planning Commission and Board of Supervisors with regard to landmarks designation of the existing buildings on the site are listed in materials on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319. Correspondence to the Board of Supervisors from the general public regarding landmarks designation of One Sansome and 58 Sutter is contained in Files #90-79-5 and #90-79-6 at the Board of Supervisors Clerk's Office in City Hall, Room 235; however, there is no record of any correspondence from the previous developer to members of the Board of Supervisors. Five letters and 6 telephone calls to the neighborhood desk at the Mayor's office were recorded in File #90-79-5 for landmarks designation of One Sansome and 2 were against. Eight letters were for, and 2 were against designation of the Holbrook Building in File #90-79-6.

Paragraph 1 on page 34 has been revised to read:

> "The San Francisco Landmarks Preservation Advisory Board recommended City landmark status for the building (7 For, 0 Against, 1 Absent)[1] and the City Planning Commission recommended designation (7 For, 0 Against) to the Board of Supervisors on 4 January 1979.[2] However, the Board of Supervisors denied landmark designation (4 For, 5 Against, 2 Absent) on 2 April 1979.[3]

The following footnotes have been added at the bottom of page 34 to correspond to the revised text:

> [2]San Francisco City Planning Commission Resolution No. 8141, 4 January 1979. This resolution is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3]San Francisco Board of Supervisors, File No. 90-79-6. This material is on file and available for public review at the Board of Supervisors Clerk's Office, City Hall, Room 235.

Paragraph 2 on page 36 has been revised to read:

"The Landmarks Preservation Advisory Board recommended City Landmarks Status for the Holbrook Building (4 For, 3 Against, 1 Absent)[1] and the City Planning Commission recommended designation (4 For, 3 Against) on 4 January 1979.[2] The Board of Supervisors denied landmarks designation (0 For, 9 Against, 2 Absent) on 2 April 1979.[3]

The following footnotes have been added at the bottom of page 36 to correspond to the revised text:

[2]San Francisco City Planning Commission Resolution No. 8140, 4 January 1979. This resolution is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

[3]San Francisco Board of Supervisors, File No. 90-79-5. Copies of this material is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

Footnote #2 at the bottom of page 36 has been changed to #4.

Under Resolution 8600, passed 29 May 1980, the City Planning Commission designated a list of "Architecturally and/or Historically Significant Buildings" in the downtown meriting special concern for preservation in part or in whole in lieu of "Structures of Merit" (City Planning Commission Resolution No. 8600). The last sentence of paragraph 2 on page 66 has been changed to read:

"Both buildings also have been officially designated by the City Planning Commission as "Architecturally and/or Historically Significant Buildings."[2]

Footnote #2 has been revised to read:

[2]San Francisco City Planning Commission, Resolution 8600, 29 May 1980. This resolution is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

Kelham's addition to the original One Sansome Building designed by Pissis is discussed on pages 29-30 and depicted in plan in Figure 33 on page 69. Figure 55 on page 157 identifies the existing bank interior which occupies most of the ground floor. Detailed plans and

identification of rooms on the basement, mezzanine, and third floor levels have been omitted to minimize excessive detail in the DEIR. Figure 34 on page 70 includes a photograph of the banking hall interior. Discussion of the existing building is incorporated into various sections of the DEIR and not confined to the environmental setting section in order to better understand the impacts of the proposed project.

As stated on page 67, according to the best judgment of the consulting architectural historian for the DEIR, loss of the interior of One Sansome would probably eliminate it from eligibility for a potential National Register Thematic District of Monumental Banks. According to the same source, it is not possible to make a decisive judgment as to effect on eligibility until a district nomination has been made and a final decision has been rendered by the deciding body.

The following has been inserted after sentence 4 in paragraph 1 on page 30:

> "The interior includes a major bank exchange hall occupying most of the first floor, a basement vault area and a service basement, a mezzanine not visible from the bank hall and a third floor office level corresponding to the mezzanine and surrounding the upper lightwell. The ceiling is dominated by a large oval dome of yellow glass (since painted over) and an elaborate octagonal coffering joined by an ornamental pattern of studded lines and strands. The division of the mezzanine wall bays are decorated by cast medallions emulating Roman coins which are repeated in the collar of the dome. The original marble rail and bronze teller cages remain, but much of the original banking furniture has been removed, including the marble check-writing tables.[1]"

The following footnote has been added at the bottom of page 30 to correspond to the added text:

> [1]Field survey by John M. Sanger Associates Inc, 25 June 1981.

3. Historical and Cultural Impacts

COMMENTS

Gray Brechin:

"...the project architect states on Page 68 that the court would be 'lined with arched walls of white granite and embellished with fern trees and fountains historically compatible with the neo-classic Beaux Arts style of the existing facade.' I would like to add that in plan, elevation, materials, detailing, and function, this court displays complete incomprehension of Beaux Arts principles of design.

...Figure 33 on Page 69 presents a schematic diagram of the 'historic evolution' and 'proposed preservation' of One Sansome which is misleading as suggested by the statement on Page 68 that 'This (plaza) would represent a third stage in the building's historic evolution.' On the contrary, the 1981 proposed plan on Page 69, although shaded like its 'evolving' predecessors, is no longer a building. It is a plaza, according to its sponsors, without the functioning interior of a building."

Jonathan Malone

"Page 68. In the second paragraph, the project architects are quoted as saying that the interior of the planned court would be 'lined with arched walls of white granite and embellished with fern trees and fountains historically compatible with the neo-classic Beaux Arts style of the existing facade.' The Landmarks Board consides this claim of compatibility as described and depicted in the drawings on Pages 70 and 71 to be inaccurate.

Page 69. The Board objected to the inclusion of Figure 23 because this drawing implies that the project has already been built and that the proposed demolition of One Sansome has the same historic integrity of evolution as Albert Pissis' original 1908 structures and George Kelham's 1923 addition."

RESPONSE

The description of the design concept for the proposed public entry court was attributed to the project architects and noted as such. The design has been modified and refined since preparation of the DEIR in response to comments by architectural historians and others. The plaza now features white marble walls, a gray and white floor, sculptural relief around the arched openings and other embellishments. See also topic 9.

The following has been added to footnote #1 at the bottom of page 68:

> "Others have disagreed with this opinion. Transcript of Proceedings of the Public Hearing Before the San Francisco City Planning Commission, Draft Environmental Impact Report, One Sansome Building, 14 May 1981, pg. 5, 8, 9."

Figure 33, page 69, titled "Proposed One Sansome Project, Facade Preservation," was intended to illustrate the extent of demolition and proposed preservation of the existing facade in relation to previous changes to the building. The last sentence of paragraph 1 at the top of page 68 referring to the building's historic evolution has been deleted. Figure 33 has been revised to shade that portion of the site occupied by the proposed building. The shading of the proposed court

and reference to its historic evolution have been deleted (see revised Figure 33, page 9, DEIR page 69).

4. Urban Design Impacts

COMMENTS

John Elberling:

"...In the Urban Design section... it's a very large project, very much like the other large shoe boxes standing in a row on Market Street, and there's a real question whether this kind of design -- and it would be the third floor through fifth one depending on how you want to look at it -- is really appropriate for that location; whether this size bulk, this kind of mass of structure is really appropriate for this spot. You have already buried Market Street under a whole row of them, and the benefits of adding one more should be looked at closely.

...This building being so large...the nature of [the] facade is really a critical consideration...they're going to have ...solar gray glass and a precast concrete panel sticking out the same color as the One Sansome Building. It's hard to say if that's going to be a good design. A lot depends on the quality of the concrete work. Is there going to be any design expression in that concrete work? Are they going to be flat panels? It appears it's going to be a rather dull, boring, very big expanse of concrete and glass...

What we would like to see is some mitigation described that does much better work. There has been some good concrete work done in San Francisco. I don't see why other architects can't live up to that standard..."

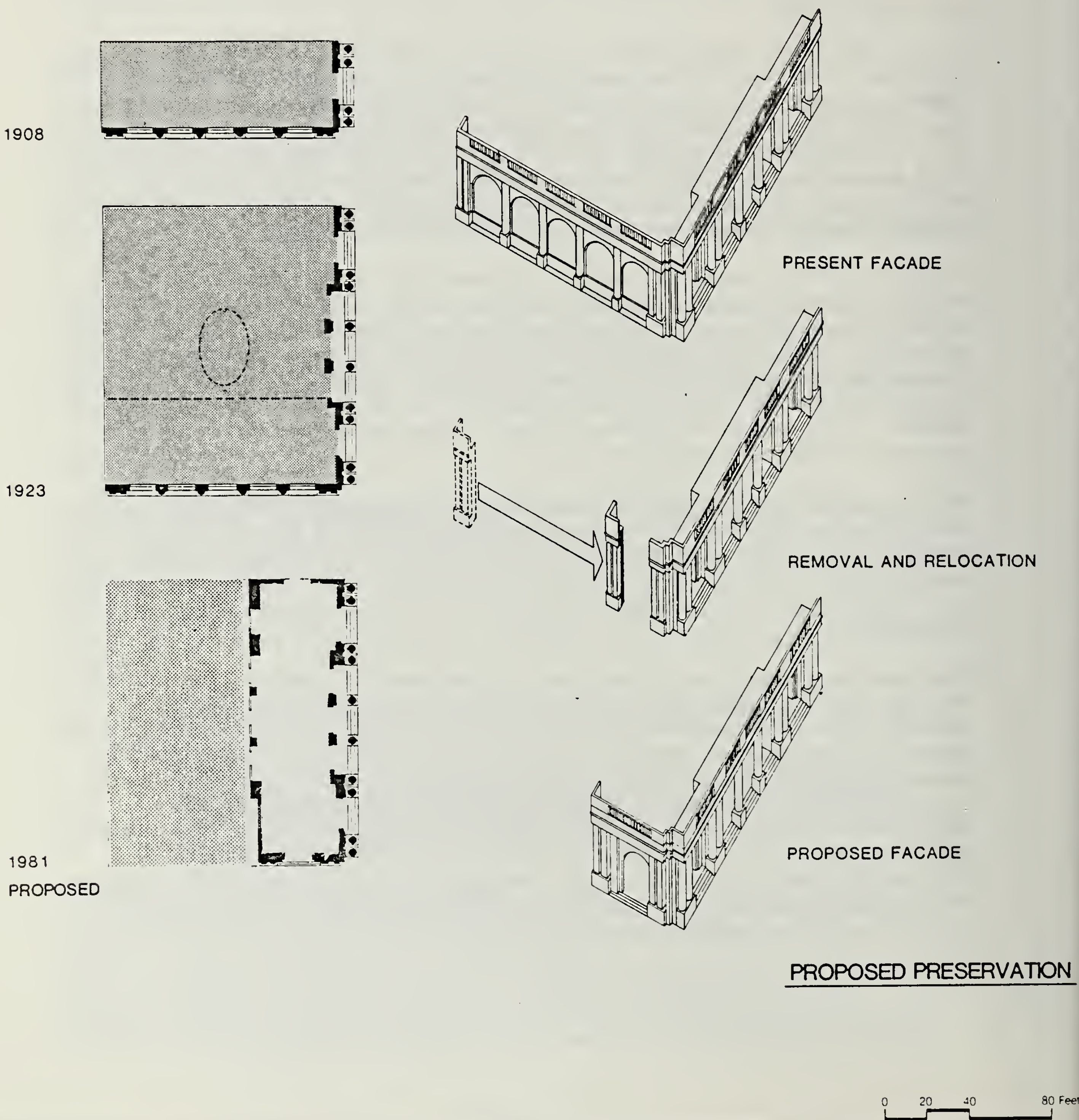
RESPONSE

The prominent location of the site is discussed on pages 9, 38, 39 and 40 and the high quality of design called for by that location is specifically addressed on pages 38, 73, and 75 of the DEIR. Figure 3 on page 12, figure 23 on page 41 and figure 42 on page 85 illustrate the relationship of the site and proposed project to other buildings in the site vicinity. The relationship of the proposed project to all applicable Planning Code height, size and bulk requirements is discussed on pages 86 and 90. The concrete panels would be articulated by horizontal joint lines at 5 foot intervals with 3/4 inch square reveals to provide some design expression. The design is continually being refined and final plans have not yet been completed.

figure 33 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS ARCHITECTS ENGINEERS

FACADE PRESERVATION



Sentence 1 in paragraph 1 on page 11 has been revised as follows:

> "The facade of the new building would be composed of pre-cast concrete, incorporating marble chips and the same Sierra white granite used in the facade of the existing One Sansome Building as an aggregate, with windows of 'solarcool' gray glass."

5. Urban Design Impacts, Relationship of the Project to the Comprehensive Plan.

COMMENTS

Jonathan Malone:

"...On Page 74, Policy 5, the Relationship of the Proposed Project to the Policies. The Landmarks Preservation Advisory board does not consider facade retention an appropriate treatment for landmarks, landmark quality buildings, or buildings eligible for or listed on the National Register of Historic Places. The Board would suggest that the last section of this paragraph be amended to read as follows:

> "The facade of the One Sansome Building along Sansome and partially along Sutter would be retained, preserving some architectural and historic qualities and retaining a degree of continuity with the adjacent Standard Oil Building."

RESPONSE

The change has been made as requested.

6. Urban Design Impacts, Relationship to Standard Oil Building

COMMENTS

John Elberling:

"...In talking about the relationship of the project and the setting again, there is no real discussion of the value of that large courtyard space that stands up the full height of the Standard Oil Building, and there's no discussion of the real benefit of the -- well, it's not really a cornice. It's the other two or three stories of the Standard Oil Building that are designed as colonnades that have an elaborate stair tower. There is a great deal of detail in the courtyard of that structure, and that should be described in the setting because it's a

real amenity to the street environment; and an impact which should be clearly noted is that the proposed project is going to almost entirely obscure that courtyard from the public view. That's something that should be noted as well."

Commissioner Bierman:

"...the other thing I thought was missing was more attention paid to the Standard Oil Building. For instance -- attention to what its rating is on the Department scale, the Heritage scale, Splendid Survivors, how it is ranked... It is important from Market Street and the view of it from Market Street also... [The EIR] really doesn't go into how many views will be lost."

RESPONSE

The following has been added at the end of paragraph 3 on page 39:

> "The Standard Oil Building is rated "3" on a 0 to 5 (5 = best) scale in the San Francisco Department of City Planning's 1976 Inventory of Architecturally Significant Buildings and "B" in the downtown building inventory by the Foundation for San Francisco's Architectural Heritage on its A to D scale (A = best). The south-facing inner court of the building displays an elaborate elevation, with an ornate stair tower and highly articulated upper levels, which is visible over the roof of the existing One Sansome Building from Market Street.

The relationship of the proposed project to the Standard Oil Building is discussed on page 73, #1; page 74, #5, #6 and #7; and page 76, #10 and #12. On page 73, #1 under Relationship of the Proposed Project to the Policies, sentence 2 has been revised to read:

> "The project would be set back from the Equitable Building. However, most views to the east from the building would be disrupted by the project and other high-rise structures on Market Street. The project would also be set back from the Standard Oil Building. Most views to the south from that building would be obstructed. The project would not affect views from Sutter Street toward the Bay."

On page 74, #6 under Relationship of the Proposed Project to the Policies, sentence 3 has been revised to read:

> "The new building would be sited in order to permit retention of the Sansome Street facade of the existing One Sansome Building and to maintain distance from the Equitable and Standard Oil buildings. Most of the rear elevation of the Standard Oil Building would not be visible from Market Street."

On page 76, #10 under Relationship of the Proposed Project to the Policies, sentence 2 has been revised to read:

> "The new tower would interfere with most views of the Standard Oil Building's rear court from Market Street."

7. Urban Design Impacts, Cumulative Visual Impacts

COMMENTS

John Elberling:

"Going to the cumulative visual impact figures -- 40, 41 -- and they're badly out of date. This EIR has been under preparation for well over a year, and I know why they're out of date. What we would like to ask them to do is to take the Planning staff's list of buildings now in the permit process and then represent them on those cumulative visual impact charts -- all of them or at least all that would be visible from that perspective."

RESPONSE

Proposed projects at 315 Howard and Five Fremont have been added to Figure 40 on page 83; these projects would not be visible in the view depicted in Figure 41. Other projects approved as of the date of the DEIR would not be visible in the views depicted in Figure 40 or Figure 41 (see revised Figure 40, page 13, DEIR page 83).

8. Land Use and Zoning Impacts, Intensity of Development, FAR

COMMENTS

Carl Imparato:

"On Page 82, the FAR of the rest of the block is discussed. On Page 90 and elsewhere, bonus footage is discussed. On Page 40, a mention is made that bonuses claimed would qualify for a FAR of 21.5. But hidden in the back in the appendix is the project FAR of 21.5. That's the FAR. That's the critical figure which is related to all the impacts. All the impacts are proportional to that figure. So the 21.5 should be in the text. It should be on Page 82. It should be on Page 90. It should be in the summary, and it should be in the Project Description on Page 11."

John Elberling:

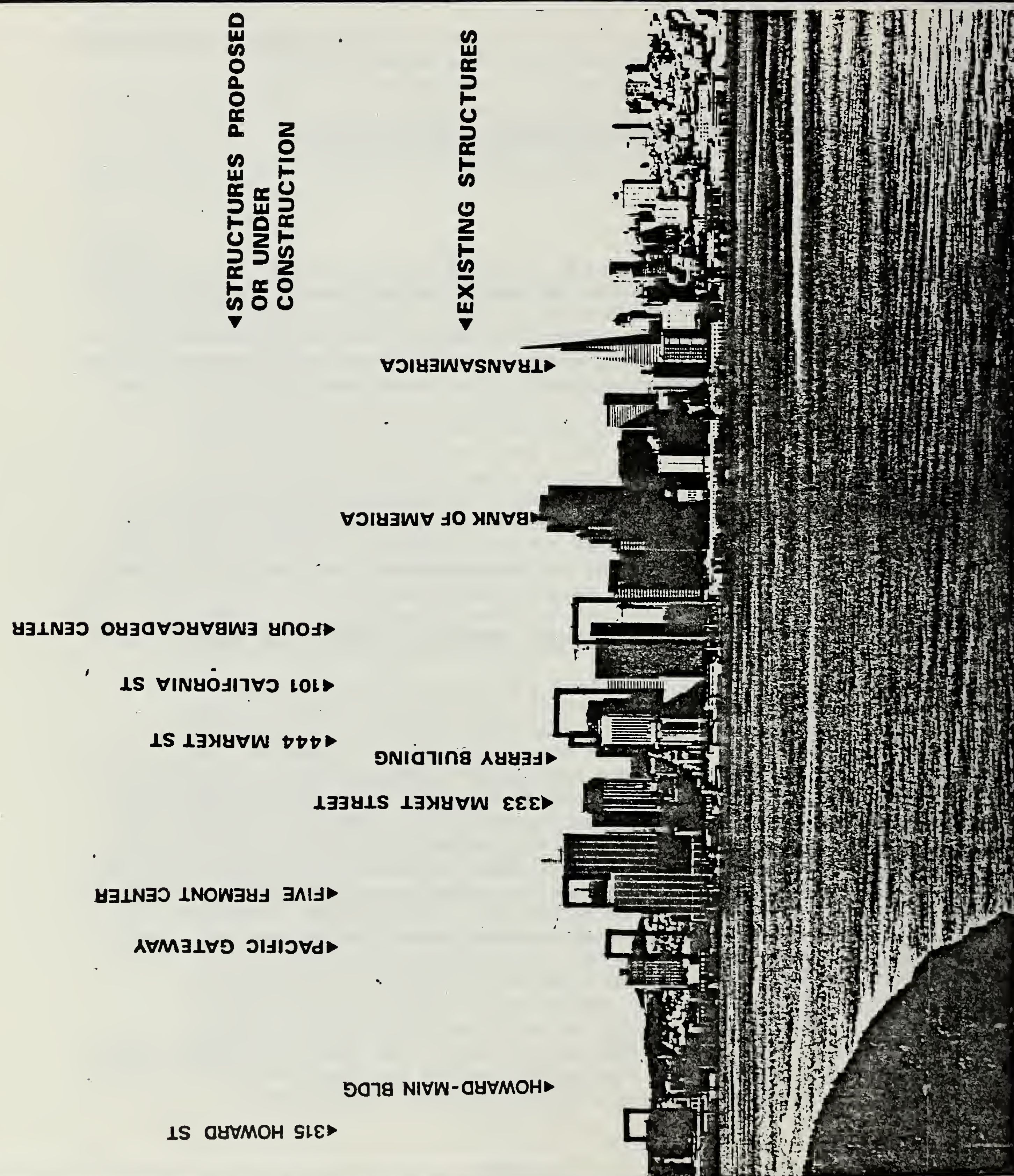
"Finally, I would just like to ask that on the question of FAR's, they provide a little table showing what office buildings in the City either existing or proposed have a higher FAR than this project."

figure 40 **CUMULATIVE VISUAL IMPACT**

Source: Environmental Science Associates
& John M. Sanger Associates Inc

Note: Proposed project not visible

VIEW FROM YERBA BUENA ISLAND



RESPONSE

Sentence 4 in paragraph 2 on page 1 has been revised to read:

> "The gross area of the building excluding mechanical floors and basement would be 728,200 square feet, with an FAR of 21.5 to 1, including 603,700 square feet of occupiable office space, a 10,900 square foot mezzanine for banking or retail use and 6,500 square feet of ground level retail space."

The following sentence has been added after sentence 3 at the top of page 11:

> "The project FAR would be 21.5 to 1."

The following sentence has been added after sentence 2 in paragraph 3 on page 82:

> "The project FAR would be 21.5 to 1."

The following has been added at the end of paragraph 3 on page 82:

> "Buildings with a higher FAR than the proposed project include the existing Wells-Fargo Bank Building at 44 Montgomery with an FAR of 23.9 and the Tishman-Cahill Building at 525 Market with an FAR of 23.6."

9. Land Use and Zoning Impacts, Bonuses

COMMENTS

Gray Brechin:

"The intent of the old bonus system was to provide through plazas public amenities to relieve the effects of high-rise congestion. What specific amenities will be provided to make this space any more than a pedestrian pass-through?"

Commissioner Klein:

"But I'm not quite clear about two things that appear in the bonus chart. They are standing to get 28,500 square feet for having a plaza. They are also getting 58,200 square feet for having a setback.

It's either that they are getting twice for the same area -- that the setback is necessary for the plaza and the plaza is only one alternative used for the setback."

President Rosenblatt:

"On Page 207, which is the table discussing FAR calculation and the bonuses, there ought to be either on that page or earlier in the document where there is a discussion of the project design some further discussion of where the building features exist to specify where the multiple building entrances are, where the side setback is. That all becomes clear if you read through the whole document and understand the design. But it would be useful to have it very specific and early in discussing where the design was created to meet the bonuses."

Sue Hestor:

"On page 90 . . . give the rationale for allowing any of these bonuses."

RESPONSE

The primary purposes of the development bonus system as described in Planning Code Article 1.2, §126(a), include:

> "Provision of good access to buildings, and improvement of access to properties, from the various forms of transportation serving the downtown area; improvement of pedestrian movement into and out of buildings, along streets and between streets; provision of pedestrian amenity by means of ground level open space; arrangement of buildings to provide light and air to streets and to other properties; and protection and enhancement of views."

The proposed project claims bonuses for the following features:

Rapid Transit Access (94,880 sq ft)

An underground connection from the basement of the proposed building to the mezzanine level of the Montgomery Street BART/MUNI-Metro Station would be provided to facilitate easy and convenient access to and from public transportation serving the downtown area. The project sponsors have been in contact with BART to ensure that the proposed connection meets all BART specifications; the letter from BARTD cited on page 1 indicated support for this connection.

Multiple Building Entrances (23,720 sq ft)

Seven major building entrances would be provided; three from Sutter Street and four from Sansome Street to facilitate movement into and out of the building and to minimize pedestrian congestion.

Sidewalk Widening (45,000 sq ft)

The proposed project would include a widened sidewalk area to improve pedestrian movement along Sutter Street through the provision of a sidewalk arcade and along Sansome Street through a portion of the public entry court and building set back from the street. The widened area would be readily visible from both streets and would be open at all times to the general public. Credit claimed for this element does not include credit claimed for the plaza bonus.

Shortened Walking Distance (3,000 sq ft)

A shortened walking distance would be provided for pedestrians across the site through the public entry court along Sansome Street, through the building lobby and through the arcade along Sutter Street to reduce walking distances and enhance pedestrian convenience. All areas along this walkway would be open for use during normal business hours and would be accessible to the general public.

Plaza (28,500 sq ft)

The proposed project would provide a public entry court located in front of the proposed tower. The proposed entry court would be directly accessible to the general public and would be a public space. It would be partially covered by a pleated glass roof to provide some protection from weather while allowing light and air into the area. A portion of the 5,600 square foot area of the public entry court qualifies for the plaza bonus.

Side Setback (58,200 sq ft)

The proposed tower would be set back from the Standard Oil Building and the Equitable Building to provide light and air to adjacent properties. The creditable side setback area is computed above a height of 40 feet, along the entire lot in accordance with Planning Code Article 1.2 §126(b)(8).

Bonus area calculations were reviewed and verified by the Zoning Administrator as indicated in the note referenced on page 277.

The second note at the bottom of page 277 has been revised to read:

"Correspondence regarding the Department of City Planning's review of bonus floor area calculations is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

Paragraph 2 on page 11 has been revised to read as follows:

> "An underground connection to the mezzanine level of the Montgomery Street BART/MUNI-Metro station would be provided from the building's basement, connected to the lobby by a separate elevator. (Figure 11, page 20). Multiple building entrances would be located on both Sansome and Sutter Streets. The sidewalk area along Sutter Street would be widened through the provision of an arcade and along Sansome Street by a portion of the public entry court, providing a shortened walking distance across the site through these areas and the building lobby. (Figure 12, page 21). The proposed tower would be set back from the Standard Oil Building and the Equitable Building. (Figure 14, page 23)."

The following figures depicting the bonus floor area calculations have been added to Appendix E, as Figures E-1, E-2 and E-3 (see pages 199-201).

The sentences in parentheses at the end of paragraph 2 on page 40 and after sentence 3, paragraph 2 on page 90 have been revised to read:

> (See page 11 for a description of the location of these features and Appendix E, Table E-1, Figures E-1, E-2 and E-3 for bonus floor area calculations.)

10. Transportation Impacts, Traffic

COMMENTS

Carl Imparato:

"The impacts of downtown growth on the expansion of the Bay Bridge Toll Plaza, the impacts on the proposed widening of Interstate 80, the overall increase in the number of vehicle miles traveled should be discussed."

Commissioner Blerman:

"On Page 46 it states that the Washington-Clay ramps, on or off ramps, are available to the project. I think City policy possibly would do away with those ramps if the waterfront plan is implemented ever, and maybe it should say that those ramps might eventually be eliminated."

figure E1 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS·ARCHITECTS·ENGINEERS

BONUS CALCULATIONS

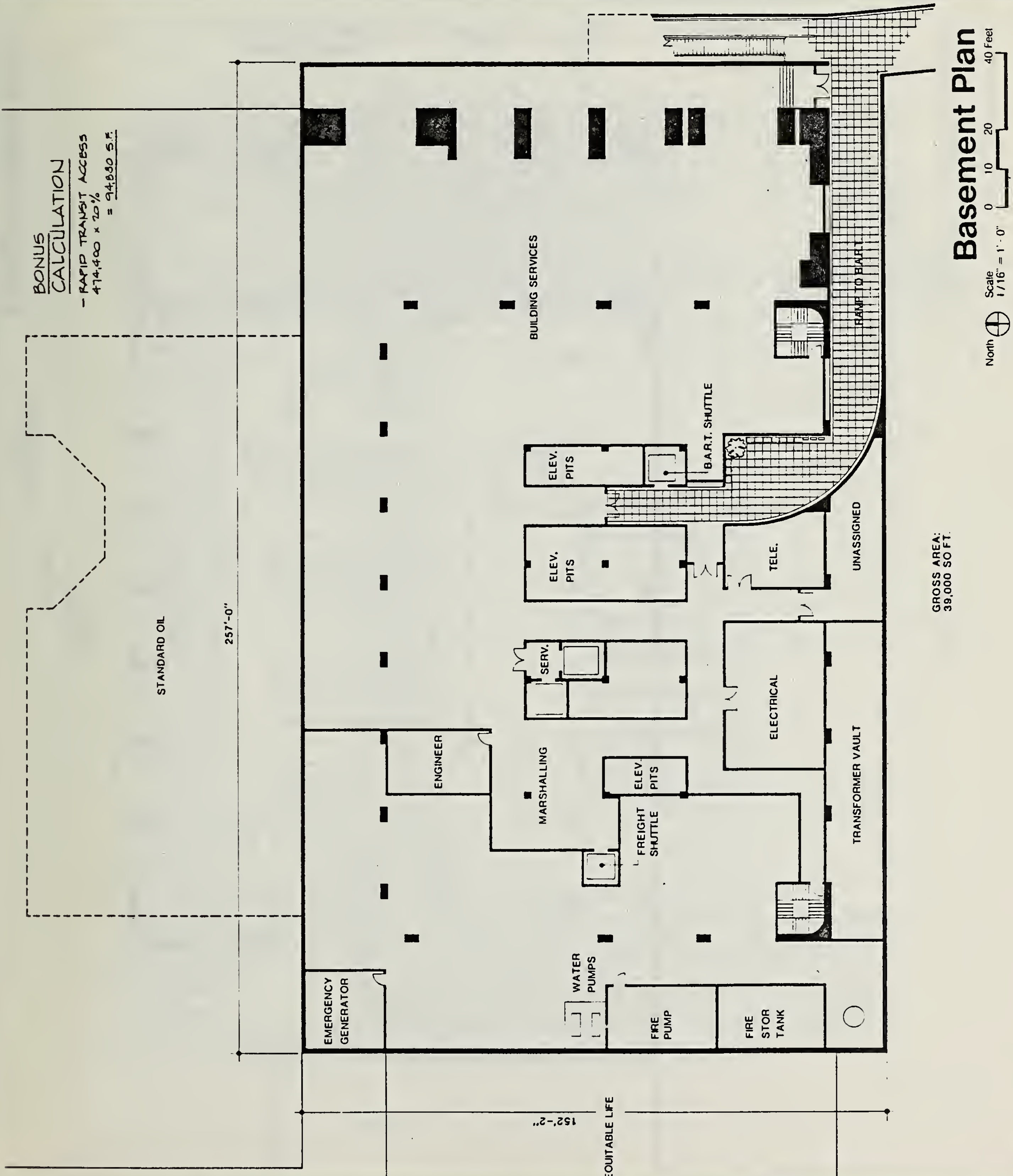
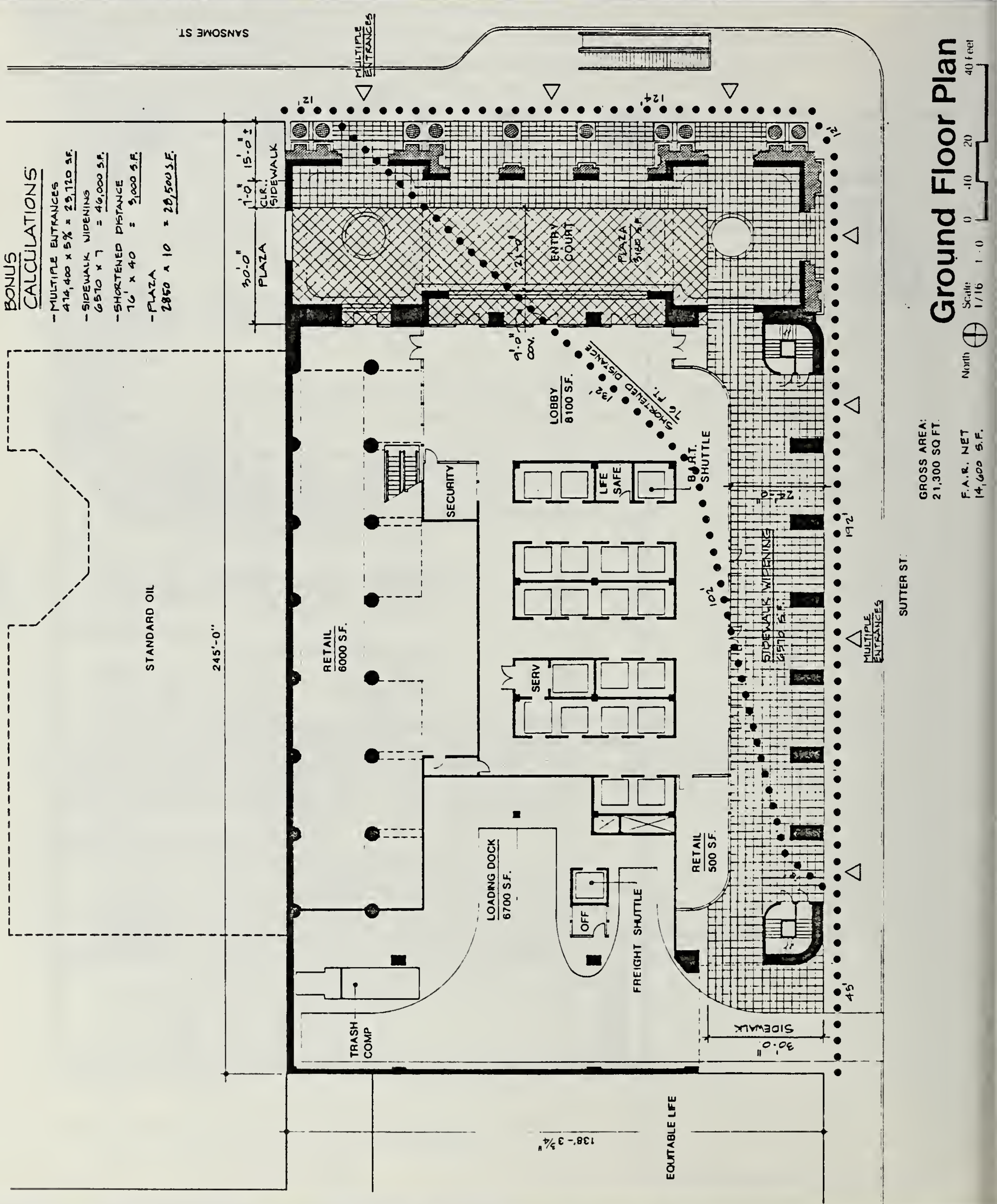


figure E2 **PROPOSED ONE SANSOME PROJECT**

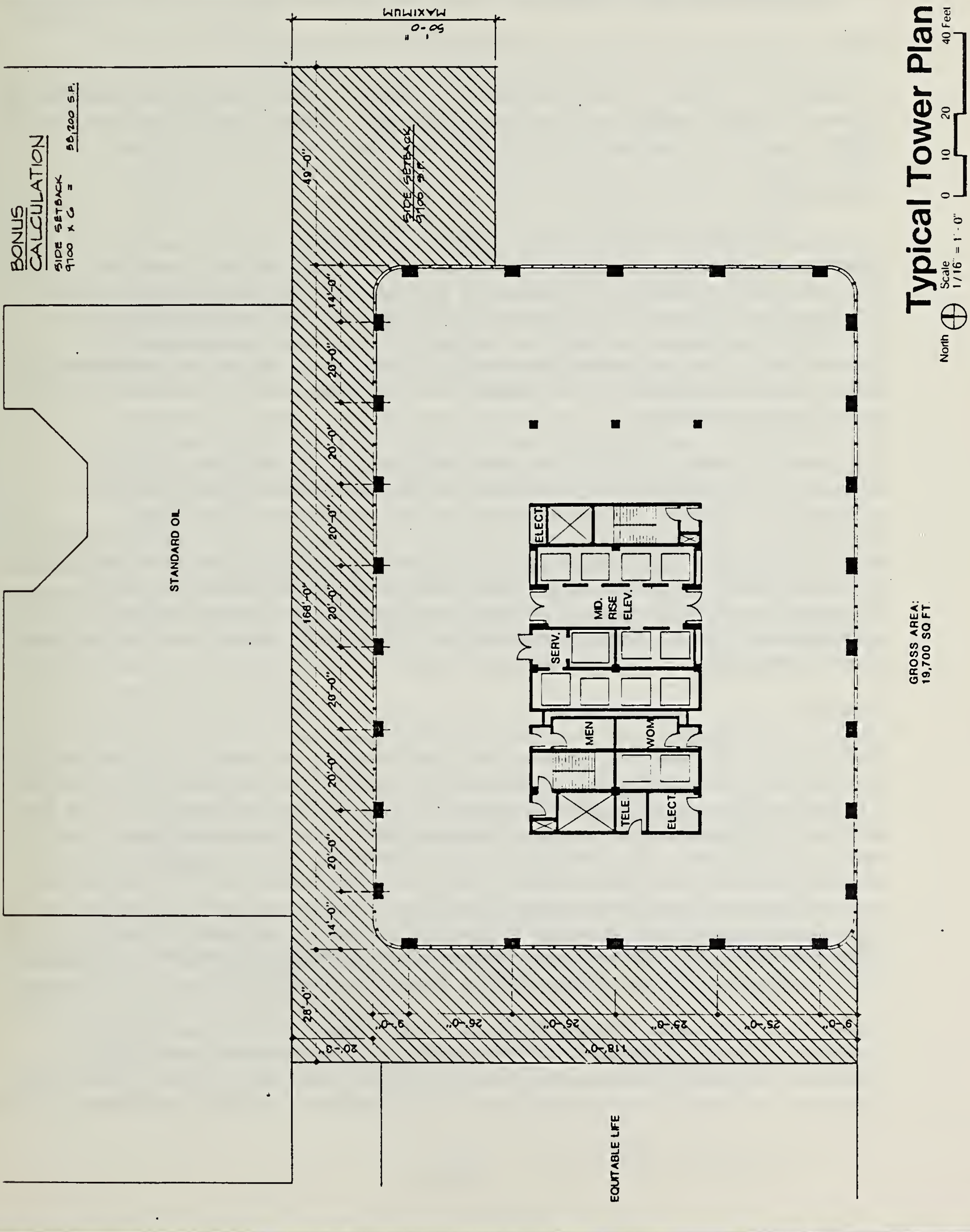
Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS·ARCHITECTS ENGINEERS

BONUS CACULATIONS



Source: WILLIAM L PEREIRA ASSOCIATES PLANNERS ARCHITECTS ENGINEERS

BONUS CALCULATIONS



Sue Hestor:

"At current rate of growth, when will (U.S.) 101 have to be widened and how much? Ditto for bridges.

Ferry probably will close; do analysis with it gone.

On page 90... what is the cumulative impact within six blocks radius of other projects requiring closing of traffic lanes? Can it be avoided here?"

John West:

"It is understood that a major study is forthcoming that will deal with traffic in adequate detail in the macro area of the business and shopping area, Route 280 deletion, the waterfront and removal of the Embarcardero Freeway. It is believed that the effects of the area traffic that can be conceptualized without speculation should be discussed in the document especially since the City of San Francisco is pursuing the removal of the Embarcadero Freeway and is approving high density development.

The severe transportation impacts that exist in the area and the additional generation of transportation needs associated with the project are fairly well disclosed in the document. The other significant projects that are under construction or are approved have been identified and considered in assessing transportation effects; however, other high density office buildings and hotels that are proposed (and the Moscone Convention Center?) that may further exacerbate traffic and transportation capability have been omitted as far as we know."

RESPONSE

The impacts of cumulative downtown development on traffic on the Bay Bridge and Interstate 80 is discussed on page 101 of the DEIR. As the discussion does not assume widening of U.S. 80 or expansion of the Bay Bridge toll plaza, the impacts may be overstated if these improvements were implemented. The number of daily vehicle miles travelled due to cumulative downtown development used in calculation of air quality and energy impacts is approximately 645,800. Vehicle miles travelled assignments are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319, as referenced in the note on page 119.

Removal of the Embarcadero Freeway could alter traffic patterns in a number of ways, depending on the nature of replacement facilities, changing parking preferences resulting from removal of the freeway and changes in traffic congestion on city streets. Detailed analysis of the

impacts of removing the freeway is beyond the scope of the DEIR; such an action would require a separate EIR and evaluation of measures proposed to accommodate traffic now being served by the Freeway. Since the discussion in the DEIR does not assume the extension of Route 280, deletion of the proposed extension would not affect traffic impacts described in the DEIR.

The following paragraph has been added as paragraph 2 on page 101:

> "If the Embarcadero Freeway were removed, the Clay and Washington Street ramps would also be removed. In that case, traffic now using the Embarcadero Freeway and the ramps would either use the improved Embarcadero roadway proposed to replace the Embarcadero Freeway to ramps south of Market Street to reach the Bay Bridge and U.S. 101 or would use those streets shown on Figure 27 to reach on-ramps at Main and Beale and Harrison and Bryant at 4th Street. Removal of the Embarcadero Freeway might also result in a change in parking preferences, shifting a demand for parking from north of Market Street to south of Market Street closer to the remaining freeway ramps, or increased transit use. Projected traffic volumes around the site of the proposed project, estimated in Table 8, page 102 and as described in Appendix F, could change due to shifts in the choice of parking locations. However, streets around the site would remain at Level of Service A."

Closure of the Golden Gate Ferry System would result in approximately 40 passenger work-trips generated by the project switching to either automobiles or other public transit. More detailed analysis of the ferry closure or widening of U.S. 101 and bridges is beyond the scope of the EIR, since each action would have impacts beyond those associated with the proposed project.

The following sentence has been added at the end of paragraph 1 on page 99:

> "If the Golden Gate Ferries were closed, 40 passenger work-trips generated by the proposed project would switch to either automobiles or other public transit."

As discussed on page 90 of the DEIR, disruption of one traffic lane along Sutter Street may be required during project construction due to retention of the existing facade along Sansome Street. Closure would depend on an on-site meeting between project contractors and City officials prior to construction.

The following sentence has been added at the end of sentence 1 on page 91:

> "The only other project within 6 blocks on Sutter Street is Crocker Center which also has required the closure of one traffic lane."

Appendix F, Table F-8 on pages 219-221 of the DEIR lists projects considered in the analysis of the cumulative impacts of downtown development. This list was based on the Department of City Planning's Guidelines for Environmental Evaluation: Transportation Impacts, Attachment 2, October 1980. The most recent project on the list is Pacific Gateway; the guidelines have not been updated to include projects approved since October 1980.

11. Transportation Impacts, MUNI

COMMENTS

Carl Imparato:

"The next area that we question concerns the calculation of MUNI's demand due to this project. The table on Page 93 summarized that demand, and from the table it looks like the number of project office workers who would come into town or leave town during peak hours by some mode of transportation and then transfer to the MUNI, it looks like from the table there would be only 60 of those people. In light of the fact that 85 people would arrive on S.P and in light of the fact that the same Environmental Impact Report states that a number of the 715 auto commuters would have to park in remote areas like the neighborhoods and then get downtown somehow, with that many people why are only 60 people going to transfer to the MUNI? So we would like an explanation of that.

We note further, too, that even with the MUNI service increases that are projected, load factors will not decrease from the intolerable level of 1.2 but will probably increase to 1.3. Also on Page 94. The definition of load factor in the EIR is incorrect because the quantities that define it are inverted."

Sue Hestor:

"Page 94... The entire section presumes continuation of subsidies and availability of grants for new equipment -- given current Federal mood and Prop 13 shortages this may be unrealistic. Do some analysis without such subsidies. If subsidies to MUNI (are) out, with cumulative growth of downtown projected, how much will MUNI fare have to rise?"

President Rosenblatt:

"On Page 94 under Transit Impacts, MUNI, please compare the statistics in the first couple of lines with the table on Page 100 under the row labeled as MUNI on Page 100. The number of riders in those don't coincide.

In that same paragraph on Page 94, there is a discussion of impact without expanded capacity on 21 of the lines. But there is no discussion about what the impact would be with expanded capacity that is referred to in the first couple of lines of the paragraph. That ought to be clarified."

RESPONSE

Table 6 on page 93 is based on modal split factors contained in the Department of City Planning's Guidelines for Environmental Evaluation: Transportation Impacts, Attachment 1, October, 1980, which assume transfers from MUNI at 3% during the peak hour. Since many commuters take more than one mode of transportation including walking, the number of persons who walk or transfer from MUNI to some other system during the P.M. peak hour may be understated. However, they are included in the "MUNI Transfers" and "Other" categories. Those who use MUNI to transfer to automobiles are intended to be included in the projected MUNI demand.

Footnote 2 on page 94 has been revised to read:

> "Load factor is the estimated ridership divided by the recommended maximum seating capacity. Maximum recommended capacity (1.5 x number of seats) typically exceeds seating capacity to account for standees."

The discussion on page 94 of impacts on MUNI represents the worst-case situation without expanded capacity and does not assume new equipment purchases. As indicated on page 95 of the DEIR, provision of additional capacity as planned would be dependent on available funds. If no federal or state subsidies were available to assist in funding expanded capacity, and if no additional local funds were available other than increases in fares, fares would have to increase by about 45¢ per passenger trip during the peak hour, which is the period during which the proposed project and cumulative new downtown development would have an impact, based on estimated marginal costs to accommodate additional passengers during the peak hour (see responses to comments under Topic 14). Whether or not fares would have to increase would depend on decisions made by the Board of Supervisors regarding the choice between fare increases and alternative sources of funding (See also discussion of response to comments under Topic 14 regarding legislation passed to impose transit impact development fees and to establish a special assessment district to fund MUNI services.)

Figures cited in sentence 2 on page 94 under MUNI impacts refer to the 38 lines serving the downtown area which are within 2,000 feet of the proposed project and describe current estimated capacities. Table 7 on page 100 lists all 43 lines serving the downtown area which are relevant to cumulative impacts, including 5 lines which are more than 2,000 feet away from the proposed project, and shows projected capacities for 1983 based on implementation of the MUNI 5-Year Plan.

However, Table 7 in the DEIR contained incorrect labels for columns 3, 4, 6 and 7, incorrect numbers for MUNI capacity and inadequate footnotes. Table 7 has been revised to provide the proper labeling and information (see revised Table 7, page 26, DEIR page 100).

The second paragraph on page 99 has been revised to read as follows:

> "Table 7 summarizes the impacts of cumulative new development, including the proposed project, on local and regional transit systems, based on planned capacity increases."

12. Transportation Impacts, BART

COMMENTS

Marty Birkenthal:

"Page 95...The first sentence needs to be revised to clearly state that 17,400 peak hour passengers (not 18,050 as stated) are those leaving downtown San Francisco to both the East Bay and Daly City. As stated, the reader is led to believe that this figure pertains to the entire BART system for peak hour operation.

The sentence in the same paragraph ("BART has increased its eastbound capacity to 11,700 by 'closing headways', that is, operating with 4-minute intervals between trains.") needs to state clearly that the 11,700 capacity figure assumes a 1.3 load factor (ratio of passengers to seats). BART actually provides 9,090 seats during the peak hour during November 1980. Current capacity and demand figures are provided in the enclosed tabulation. Also, the average headway through downtown San Francisco during peak commute hours is 3.75 minutes.

(Second paragraph, second sentence). With an eastbound seated capacity during the afternoon peak hour of 9,090 -- not 11,700 as assumed -- the resulting load factor is 1.50 when the 'cumulative downtown development induced trips' are added to current demand.

(Page 96, continuation of first sentence from previous page). BART schedules call for 16 peak-hour/peak direction trains, not 17 as stated."

TABLE 7

PROJECTED CUMULATIVE IMPACTS ON TRANSIT SYSTEMS (P.M. PEAK HOUR)

	1980 (Current)			1983 (Projected)[1]		
Mode	Ridership	Maximum Recommended Capacity	Overall Weighted Load Factor[4]	Ridership	Maximum Recommended Capacity	Overall Weighted Load Factor[4]
MUNI[2]	28,480	35,730	0.80	35,630	39,840	0.89
BART[3]	17,400	20,475	0.85	21,130	20,475	1.03
AC Transit	7,800	10,800	0.72	9,900	10,800	0.92
SAMTRANS	860	1,360	0.63	1,230	1,360	0.90
SPRR	5,500	6,660	0.82	6,600	6,660	0.99
GGT Bus	9,000	9,000	1.00	10,060	9,000	1.12
GGT Ferry	1,100	1,470	0.75	1,450	1,470	0.99

[1]1983 projections assume planned increases in transit system capacities based on telephone communication, 10 November 1980, S. Chelone, Transit Planner I, San Francisco, Municipal Railway.

[2]Projected impacts on a line-by-line basis are shown in Appendix F, Table F-21, page 244. MUNI figures refer to all 43 lines serving the downtown area.

[3]Includes both eastbound and westbound passengers.

[4]Ridership on system or relevant lines divided by aggregate maximum recommended capacity.

Source: John M. Sanger Associates Inc

Sue Hestor:

"Where will BART cars in 1983 come from -- is the money in the bank for them?"

RESPONSE

Based on BART's recommended maximum capacity of 130% of seated capacity, as stated in the DEIR, seated capacity for 9090 provides a maximum recommended capacity for 11,800 passengers. The term load factor is consistently defined in terms of maximum recommended capacity, not seated capacity.

Sentence 1 in paragraph 2 on page 95 has been revised to read:

> "Passengers on the Bay Area Rapid Transit System (BART) are estimated at 17,400 during the eastbound and westbound p.m. peak commute from downtown San Francisco.[2]"

Sentence 3 in paragraph 2 on page 95 has been revised to read:

> "BART has increased its eastbound maximum recommended capacity to 11,800 by 'closing headways', that is, operating with an average 3.75 minute interval between trains."

Sentences 2 and 3 in paragraph 3, page 95 and 96, have been revised to read:

> "At existing maximum recommended capacity, BART would operate at a 1.16 load factor (or 150% of seated capacity) during the p.m. peak hour in the eastbound direction. At this load factor, some of the 16 eastbound trains in operation at the p.m. peak hour would operate under crush conditions, with passenger delays resulting from waits for less crowded trains and with possible shifts to other modes, including AC Transit and automobiles."

Of the funds necessary to produce the 90 new cars for the BART system, $30 million is now available to produce four prototypes. BART is now in the process of securing the remaining funds for full production. Although the mood of the federal government is not easily predictable, it is believed by those involved in the funding process that the funds will be available for production of these additional cars (Steve Proctor, Supervisor of Capital Program Development, Bay Area Rapid Transit District, telephone communication, 16 June 1981).

13. Transportation Impacts, Parking

COMMENTS

Carl Imparato:

"On Page 104, the Draft EIR states that the additional parking demand generated by the project would be 895 spaces. That's 690 long-term spaces due to employees and 205 short-term spaces. Now, that by itself is a lot of spaces. Eight hundred ninety-five spaces is about a three-mile string of cars that you have got to try and park some place. Now, looking at those long-term spaces that comes out to about .22 spaces per employee. Now, other environmental impact reports use figures of .35 spaces per employee. That was 101 Montgomery. Another used .39 spaces per employee. That was Five Fremont. On the Five Fremont basis, for example, this project would generate a demand for 1217 long-term spaces and not 690 long-term spaces. Now, that's about 60 percent greater than what is stated in this Draft EIR. So we'd like the Final Environmental Impact Report to explain why this building would generate so much less parking demand per capita than the Five Fremont Building.

...when we look at the cumulative parking demand, the 315 Howard EIR and the Five Fremont EIR yield figures of approximately 1.5 spaces required per 1,000 gross square feet of office space. The 315 Howard Environmental Impact Report using the 11 million square feet of office space which is currently in the mill came up with a deficit of 17,400 parking spaces. Now, this Environmental Impact Report only comes up with a deficit of 4,900 parking spaces. Now, we have to ask why. First of all, it uses a smaller amount of office space for the cumulative impacts. Second of all, it uses a lower demand per thousand square feet to come up with the cumulative demand. In light of the other environmental impact reports, this seems to be very deceptive, and it either should be explained or the Environmental Impact Report should be revised.

Finally, and this is still on parking, we note that Page 106 mentions that there would be new demand for parking in more remote areas with good transit service to the district. Now, where are those areas? The Environmental Impact Report should be unbiased and it should state that much of the new commuter parking demand will most likely be met by increased commuter parking in residential neighborhoods. Those are the districts with the best transit service, and that should be explicitly stated in the Final EIR."

Commissioner Bierman:

"On Pages 51 and 52 are we sure that all the parking listed here is available and will be available in the next few years? It's the same problem we have had with other EIR's. It's very hard for us to

determine whether all that parking is available or might be built on in the next few years even before the project is finished or as soon as it's finished."

RESPONSE

Differences in projected parking demand per employee among EIRs is attributable in part to differing assumptions regarding modal splits, employee building population, and the effect of building location. The modal split used in the DEIR is based on modal splits provided by the Department of City Planning's <u>Guidelines for Environmental Evaluation: Transportation Impacts</u> (October, 1980). Based on this document, 31% of peak hour trips are projected to be automobile trips. The automobile share used for Five Fremont was 45% (San Francisco City Planning Commission, <u>Final Environmental Impact Report, Five Fremont Center</u>, EE80.268, December, 1980, Table C-3, page 255). The higher automobile share used for Five Fremont results in a correspondingly greater parking demand.

Estimates of cumulative parking demand in other EIRs vary in accordance with the times at which the EIRs have been produced. Estimates contained in the Five Fremont EIR include projects now completed, the parking demand from which is accounted for in the information on existing parking utilization contained in the One Sansome DEIR, pages 48, 52 and 53. Page 106 of the One Sansome DEIR contained an error in the estimate of cumulative future parking demand. There could be a potential reduction in the number of parking spaces listed on page 53 and 54 of the DEIR of approximately 400 spaces due to development of the Yerba Buena Redevelopment project.

Paragraph 1 on page 106 after sentence 1 has been revised to read as follows:

> "Projected long-term parking demand from both the proposed project and from cumulative downtown development would be about 9,800 spaces and, when combined with the current demand, would exceed the existing supply of parking spaces listed in Table 2 on page 53 by 8,200 to 8,600 spaces, depending on potential loss of existing spaces in Yerba Buena Center. Continued availability of this parking is dependent on the development potential of such sites for other uses. Office workers would probably have to park more than 4 blocks away from the site, and there would be new demand for parking on the fringe of the downtown office district. Certain sites under and south of U.S. 101 are intended for peripheral parking by the Department of City Planning.[2] There could also be increased parking in residential neighborhoods with good transit service to downtown. Many such neighborhoods have instituted preferential parking areas wherein only residents may park for longer than 2 - 4 hours."

The following footnote has been added at the bottom of page 106:

> "[2]Department of City Planning, Guiding Downtown Development, May 1981, p. D-1, D-6."

14. Economic and Fiscal Impacts, MUNI Costs

COMMENTS

Carl Imparato:

"In the area of MUNI costs, this Draft Environmental Impact Report uses a very unrealistic methodology. It states that the increased MUNI costs due to the demand for 635 more peak hour trips would only be $65,000. That's on Pages 4 and 140. Now, that methodology doesn't recognize the true cost of adding new buses, new drivers to the MUNI system to meet the 26 percent increase in downtown MUNI services which is being projected. Now, since this project is going to be responsible for part of that cumulative demand and it's going to necessitate part of that 26 percent capacity expansion, then the project's share of MUNI costs must be based on the costs associated with this large scale increase and it shouldn't be based on the costs associated with one extra passenger jumping onto a bus today.

Now, even if we use the figure of $52,000 per additional run, that's a low figure since it doesn't take into account MUNI expenses such as overhead, bus yard expansion, Metro amortization, costs due to congestion-induced slowdown in service. Even if we just use that low figure of $52,000, the project will be responsible for at least $460,000 of additional MUNI costs -- not $65,000. Even then we didn't even include the other additional costs from new downtown office buildings, and we didn't take into account any of the cuts in subsidies that will be coming up in the future. So we feel that the MUNI cost figures need to be revised."

President Rosenblatt:

"On Page 95 at the top and on Page 139, the second full paragraph: in both of those sections there is a discussion about worst case situations, I presume, should increased revenues or resources not become available to the MUNI for capacity increases. There ought to be some current discussion with respect to the new ordinances adopted with respect to transit fees and the transportation assessment district."

RESPONSE

Marginal cost computations used in the DEIR included the following components of cost: operator labor, maintenance labor, parts, fuel, and the depreciation of a new vehicle used solely for the purpose of

transporting peak period commuters from the downtown area. The marginal cost computations assume that additional increases from increased demand would be relatively small so that additional fixed costs, such as administrative overhead and bus yard expansion, would not occur (Bruce Bernhard, Transportation Economist, Public Utilities Commission, City and County of San Francisco, telephone communication, 17 June 1981).

A 26% increase in peak period service in the downtown area would need to include fixed costs in a deficit per passenger trip computation. Revised average deficit per passenger figures from the MUNI 1980-81 proposed budget (revised as of April 1, 1981) include:

Average deficit per passenger trip:	$0.246
Average deficit per passenger trip less federal subventions:	$0.316
Average deficit per passenger trip less federal and state subventions:	$0.448

(Bruce Bernhard, Transportation Economist, Public Utilities Commission, City and County of San Francisco, telephone communication, 17 June 1981.) Based on average cost per passenger trip, the annual deficit attributable to the proposed project would be $75,100, and the cumulative deficit would be $841,000. If federal subventions were not available, the annual deficit from the proposed project would be $96,500, while the cumulative deficit would be $1,080,000. With both federal and state subventions not included, the deficit from the proposed project would be $136,750, while the cumulative deficit would be $1,531,000.

The following has been added to page 140 after paragraph 1:

> "The City and County enacted two ordinances on May 5, 1981 which are intended to increase the ability of the City to finance augmented MUNI service to the downtown area in order to accommodate increased demand. Ordinance No. 224-81 establishes a Transit Impact Development Fee applicable to all new development, including the proposed project, imposing a fee of up to $5.00 per square foot of new office space, based on estimated additional demand for MUNI services. A lawsuit was filed on May 27, 1981 to prevent the collection of this fee. In the event that the fee is determined to be enforceable, the monies received pursuant to this ordinance must be used to increase MUNI service to the downtown area and would be used therefore to mitigate the impacts of the proposed project and other projects on MUNI service by increasing MUNI peak hour capacity.

Ordinance No. 225-81 authorizes the Board of Supervisors to establish a special assessment district in order to impose assessments on property owners in the downtown area who benefit specially from MUNI services provided in the area. Before any monies would be forthcoming, the Board of Supervisors must pass an ordinance establishing a special assessment district, determining the assessment formulas and determining the share of MUNI costs to be financed from assessments. Litigation is likely. If the assessment district is established and upheld against legal challenge, additional funding could be available in the future to improve MUNI service, depending on budgetary decisions by the Mayor and the Board of Supervisors. The proposed project, like other proposed projects, would receive a credit against any such assessment based on payment of the transit impact development fee."

15. Economic and Fiscal, BART

COMMENTS

Marty Birkenthal:

"Page 140...the correct cost assumptions used to calculate a deficit per trip and annual deficit should be:

Total revenue (fares plus all other revenues) per trip averages $1.10.

Total rail cost per trip is 15.7¢/passenger mile times 13.2 miles/average trip equals $2.07.

Average deficit per trip thus is $2.07 - $1.10 = $0.97.

On this basis, the annual deficit due to One Sansome Building assumed ridership is on the order of $154,000 (330 people x 2 trips/day x 241 days/year x $0.97 deficit/trip)."

RESPONSE

Based on newly-submitted information from the commenter who supplied the original information and clarifications regarding the distinction between marginal costs and average costs, paragraph 2 on page 140 has been revised to read:

"BART has a current per passenger deficit of 97¢ per trip. If this deficit continued to be incurred for new peak hour travel, the proposed project would result in an increase in

the deficit by about $254,000 annually, which would be partially offset by receipt of up to $4,900 in additional sales tax revenues allocable to BART.

If federal assistance is granted to BART to acquire new cars by 1985, based on marginal costs to BART of 69¢ per peak hour passenger trip (including new capital outlays) incurred to serve additional passengers, each new passenger trip would generate net marginal revenues of 41¢. Thus, the proposed project would generate additional annual revenues of $64,900, while cumulative development would generate additional revenues of $734,000. Positive marginal revenues over costs would result from the relatively small increase in capital and operating requirements compared to the existing investment in capital and existing operating costs. If federal assistance were not available for acquisition of new cars, each new peak hour passenger trip would generate net marginal costs of 35¢.[4]"

Footnote 4 on page 140 has been revised to read:

"[4]M. Birkenthal, Transit Analyst, Bay Area Rapid Transit District, telephone communications 14 November 1980, 22 June 1981."

16. Economic and Fiscal Impacts, Construction Employment

COMMENTS

Carl Imparato:

"On Page 137, a statement is made that 70 percent of the construction jobs associated with the project would be held by San Francisco residents. Now, this seems like a really high figure especially in light of the 1977 San Francisco Human Rights Commission study which claimed that at most 40 percent -- not 70 percent -- of the workers employed in high-rise construction actually lived in the City. So by way of clarifying this conflict, could you either provide further data possibly from the 1980 Census which shows the place of residence versus place of employment for construction trades workers or possibly use data from the membership rolls of the San Francisco Building and Construction Trades Unions to really clarify that point."

RESPONSE

The estimate that 70% of the construction jobs generated by the proposed project would be taken by San Francisco residents was based on estimates provided by construction contractors contained in other EIRs cited in the footnote at the bottom of page 137. According to the construction

contractor for the proposed project, approximately 60% of the construction jobs generated by the project may be expected to be held by residents of San Francisco (Timothy Ray, Associate, Swinerton & Walberg Company, telephone communication, 11 June 1981). The San Francisco Human Rights Commission monitors the compliance of contractors with affirmative action guidelines established for City projects such as Moscone Center and the Cleanwater Program but maintains no records of the residence of construction workers on private highrise office construction projects (Stanley Lim, San Francisco Human Rights Commission, telephone communication, 11 June 1981). Other sources of data including the 1980 Census and membership rolls of the San Francisco Building and Construction Trades Council are presently unavailable for use in the EIR (Peter Groat, San Francisco Department of City Planning, telephone communication 11 June 1981 and Stan Smith, San Francisco Building and Construction Trades Council, telephone communication, 11 June 1981).

Paragraph 1, sentence 3 on page 137 has been revised to read:

> "About 60%, or 180, of these jobs would be expected to be held by San Francisco residents."

The corresponding footnote #2 has been revised to read:

> "[2]T. Ray, Swinerton & Walberg Co., telephone communication, 11 June 1981."

17. Economic and Fiscal Impacts, Permanent Employment

COMMENTS

Carl Imparato:

". . . But there's not one shred of data in the EIR related to unemployment in San Francisco. So it's imperative that the Final Environmental Impact Report include data that quantifies the number of unemployed City residents, their occupations, and their job skills. This data should be data that notes the number of City residents that are entering the job market annually from either dropping out of high school, graduating from high school or college, their skills, and the number of openings which occur in the various skills annually.

You really need to know whether this project could possibly overcome all the minuses associated with it. So that unemployment data and the job demand data is really quite critical because you have to know whether the 1635 jobs for San Francisco residents which the Draft EIR mentions are going to be taken by present City residents or if they're going to go to newcomers who are going to displace present City residents."

John Elberling:

"We would like to ask for some data on the income levels of the new employees who are going to work in the project. That's under the Economic and Fiscal Factors."

RESPONSE

The unemployment rate in San Francisco is 6.3% with 21,000 persons unemployed in April, 1981. There is no current data available which disaggregates San Francisco unemployment by job skills, education or other characteristics (John Glogowski, Employment Data and Research Department, California Employment Development Department, telephone communication, 12 June 1981). Except for the project sponsor which would occupy about five floors of the proposed project, tenants are not yet known. However, the majority of new jobs would be expected to be in finance, insurance, real estate, retail trade and services encompassing job skills ranging from clerical, typing, and word processing to sales, management and professional skills over a broad range of income levels. The average income of downtown office employees has been estimated at about $23,000 per year in 1980 (San Francisco City Planning Commission, Final Environmental Impact Report, Five Fremont Center, EE80.268, 12 December 1980, page 89).

18. Economic and Fiscal Impacts, Downtown Revenues and Costs

COMMENTS

Carl Imparato:

". . . The footnotes on Page 140 and on Page 65 also state that "Other information suggests that total revenues . . . may exceed total costs," and the Chamber of Commerce's Arthur Anderson and Gruen-Gruen studies are referenced. Now, in all fairness those studies were paid for and defined in scope and methodology by the Chamber of Commerce. So it's extremely important that the footnotes should be deleted. If the footnotes are not going to be deleted, if they're going to be kept, then impartiality also dictates that the David Jones study of February of this year also be referenced with a note that that study supported the conclusion that downtown revenues are insufficient to justify further project approval on a fiscal basis."

RESPONSE

Footnote #5 on page 65 and footnote #1 on page 140 will be revised to read:

> "Sedway/Cooke, Downtown San Francisco Conservation and Development Planning Program Phase I Study, October, 1979, pp.

56-58; David Jones, Downtown High Rise District Cost Revenue Study, February, 1981. Other information suggests that downtown revenues may exceed costs. Arthur Anderson & Company, Downtown Highrise District Cost Revenue Study, November, 1980. Gruen Gruen + Associates, Fiscal Impacts of New Downtown High-Rises on the City and County of San Francisco, March, 1981."

19. Economic and Fiscal Impacts, Relocation and Projected Office Rents

COMMENTS

Sue Hestor:

"What kind of jobs and income in (the) present structure would have to be relocated and where?

If current rents are $6-$12, where would current businesses on site be able to move? What is (the) inflationary factor if they remain on site? (Will there be an) impact on neighborhoods as illegal conversions occur because (the) rent (is) cheaper there?"

Carl Imparato:

". . . Next, the question of projected rents in the proposed building. Most environmental impact reports have this data, but we can't seem to find it in this EIR. The current rents on the project site are $6 to $12 per square foot. If the new rents for this project are going to be anywhere near the typical $25 to $30 per square foot charged in new office buildings, this will prevent most small businesses from locating within the project and would also accelerate the trend of forcing small operations out of the downtown area and either out of the city or into the neighborhoods; and if they go into the neighborhoods which they're doing now, neighborhood businesses are dislocated as a secondary effect of downtown office boom."

RESPONSE

Since publication of the DEIR, tenants in the Holbrook Building at 58 Sutter have vacated the structure and the Crocker National Bank branch at One Sansome is expected to move to the ground floor of the adjacent Standard Oil Building by mid-summer. The former office tenants in the Holbrook Building are discussed on page 64. Most were small firms and self-employed individuals including real estate firms, sales agents, accountants and attorneys. It is not known where all office tenants and employees relocated. Ground floor retail tenants in the Holbrook Building are discussed on page 39. The branch office of California First Bank relocated one block up Sutter Street and the clothing store relocated to vacant retail space outside the financial district. See also topic 17.

Projected rents are discussed on page 134. The higher rents for new office space would tend to result in a shift in office tenants at the project site to larger firms with the ability to pay higher rents.

20. Climate and Air Quality

COMMENTS

Carl Imparato:

" the pollution effect (of the increase in the number of vehicle miles traveled) should be discussed."

Sue Hestor:

"On page 57...need a statement of how fog and winds push air pollution east and south; (and the) relationship between pollution generated in and around San Francisco due to commuters and smog alerts in the South Bay."

RESPONSE

Projected vehicular emissions resulting from the increase in vehicular miles travelled are discussed on pages 119-121 and quantified in Table 11 on page 120 of the DEIR.

The following has been inserted after sentence 2 in paragraph 3 on page 57:

> "Prevailing northwesterly and westerly winds tend to carry pollutants from San Francisco toward the South Bay and East Bay. When atomospheric stagnation occurs as a result of calm winds and thermal inversions, the entire San Francisco air basin experiences concentrations of pollutants. The more severe ozone problems..."

21. Climate and Air Quality Impacts, Proposed Public Entry Court

COMMENTS

Gray Brechin:

"On Page 13, there is a view of a proposed plaza. The architectural perspective of this space is misleading as it shows the court being flooded with sunlight from a southwesterly direction as well as from the interior of the adjacent tower. Now, this is very improbable because the shadow pattern analysis of the DEIR itself states that the proposed plaza would generally be in shade due to retention of the existing

facade elements of the One Sansome Building with light filtered through the arches and from above, and the projected shadow diagrams on Pages 114 through 116 indicate that the court would be in perennial shade."

Commissioner Klein:

"The bank building is a classic bank building, and to remove its entire interior and to have it partially open space and partially covered space does not in my view create a plaza that's going to be exposed to the sun."

RESPONSE

Figure 4 on page 13 depicts the proposed public entry court around mid-day during the summer in an illustrative manner. Figures 48, 49 and 50 on pages 114-116 depict projected shadow patterns at a specific time (1:00 p.m.) during each season of the year. This hour was selected as the time of day between 11:00 a.m. and 3:00 p.m. when outdoor activity is at a peak and when the proposed tower would have greater impact in casting shadows on Sansome Street and Crown Zellerbach Plaza. Earlier in the afternoon there would be less shadow cast on the court. At 1:00 p.m. during the fall and spring, the northwest half of the court would be shaded while the southeast half would be in sunlight. Earlier at mid-day, the court would receive considerably more sunlight to the extent illustrated in Figure 4.

The following statement has been added to Figure 4 on page 13:

> "Shadow patterns depicted are illustrative of shadings of the court at mid-day during the summer."

The statement on page 113 quoted by the commenter refers to shading of the entry court during the summer at 1:00 p.m. when more than three-fourths of the court would be shaded with only the southeast corner in sunlight.

Paragraph 2 on page 113 has been revised to read as follows:

> "In the fall and spring the project would shade a 20-foot-wide strip across Sansome Street and at the southeast corner of the Bush-Sansome Street intersection. The northwest half of the proposed public entry court would be shaded, while the southeast half would be in sunlight (Figure 49). In summer, at 1 p.m. the project would shade a 70-foot strip of Sansome Street and a 20-foot strip along the western edge of the Crown Zellerbach plaza. Only the southeast corner of the proposed public entry court would be in sunlight (Figure 50)."

Sentence 3 on page 113 has been changed to read:

> "The project would have no effects on ground-level shadow."

22. Climate and Air Quality Impacts, Crown Zellerbach Plaza

COMMENTS

Commissioner Bierman:

"On Pages 112 and 150, it seems to indicate that the wind speed on Crown Zellerbach Plaza won't be affected. But I don't think it states that clearly, and I think we need a clear statement of whether there will be any wind or climate change on the plaza and at what time of the day. Particularly I would say from eleven till three when people use that plaza a lot, is there going to be a climate change?

Also, it didn't seem clear to me how the plans would need to be altered to not do any shading on Crown Zellerbach Plaza. It says it will, and I think the shading isn't that much. On the other hand, it is at noontime in the summer that the shading appears; and since that's a really valuable plaza, it would seem that perhaps it should state how much would have to come off the top of the building in order to save that sunshine."

RESPONSE

Paragraph 3 on page 112 has been revised to read as follows:

> "During northwest winds, there would be an increase in wind speeds along the north side of Sutter Street, with winds remaining in the low to moderate category. Wind speeds elsewhere would not change. On the southwest corner of the Sansome-Sutter Street intersection, west winds would increase in speed from moderate to moderately high. Elsewhere, speeds would be changed no more than a few percentage points from existing speeds within the range of error for wind tunnel measurements. The newly created public entry court and the Crown Zellerbach Plaza across Sansome Street would be sheltered by the proposed building and would have low, turbulent winds."

The proposed project would affect shadow patterns on the Crown Zellerbach Plaza at 1:00 p.m. only during the summer by shading a 20-foot strip along the western edge of the plaza. As discussed in Table 14, Comparative Impact Summary, under shadow patterns on pages 172 and 173, Alternative 1 involving a 30-foot shorter tower set back further from Sansome Street and Alternative 3 involving a 180-foot shorter tower with no setback from Sansome Street would eliminate any shading of the Crown Zellerbach Plaza, during this time in the summer.

Elimination of any shadow on Crown Zellerbach Plaza at 1 p.m. in the summer would require either a reduction of about 20 feet in the height of the proposed project or an additional setback of the tower from Sansome Street by at least 125 feet. At noon in summer there would be less shading of the plaza by the proposed project than at 1 p.m.

23. Community Services Impacts

COMMENT

Gray Brechin:

"If it [the entry court] is indeed a "public plaza," we assume that the sponsors will take responsibility for the constant surveillance and maintenance that such an enclosed space will require."

Carl Imparato:

"Now, every EIR for every project states that no new police or new fire personnel would be needed due to that project. Now, over the next few years, there's going to be 10 million square feet of office space built, 40,000 more office workers downtown, and it really seems strange that not one additional traffic cop and not one additional fireman will be required to deal with this massive influx of people. Police, fire, health, and community services must be studied from a cumulative impact standpoint and those costs have to be apportioned to these buildings. We have to finally admit that yes, these projects do demand more in community services -- and that means either adding more personnel to the City payroll or it means diverting services from other areas to downtown."

RESPONSE

The commenter is correct in his assumption concerning responsibility for security and maintenance of the entry court. As discussed on page 148, a building security/information desk would be established in the lobby of the office tower and the project sponsor would assume responsibility for security and maintainance of the building and grounds.

According to communication with the San Francisco Police and Fire Departments referenced on page 130 and 132, additional personnel or equipment would not be required due to the proposed project or cumulative downtown development despite additional building area, population and traffic. New downtown development typically requires fewer police and fire services than similar older development due to the inclusion of security personnel and fire protection systems in newer projects.

24. Energy Impacts

COMMENTS

Carl Imparato:

"The impacts of extra energy usage of the commuter should all be seriously discussed."

Commissioner Bierman:

"Page 62. The Energy Section doesn't talk about where PG&E will get its power; and since lots of the EIR's do that, that probably ought to be in there, and it usually lists it may be necessary to rely on nuclear power."

Sue Hestor:

"Why (is there) no in-building solid waste recycling for all tenants required? Why (is there) no alternative to air conditioning?"

RESPONSE

The following has been added as paragraph 2 on page 130:

> "Fuel consumption due to vehicular traffic generated by the proposed project would be approximately 400,000 gallons per year."

The following has been added at the end of paragagarph 1 on page 62:

> "PG&E obtains some of its electrical energy from geothermal and hydrologic power; new demands will be met by increasing use of coal, oil, natural gas and nuclear power.[2]"

The corresponding footnote has been added at the bottom at page 62:

> "[2] Janice Miller, Public Information Representative, Pacific Gas and Electric Company, telephone communication, 26 June 1981."

Table 13, Mitigation Measures, on page 148 discusses solid waste recycling measures under consideration and energy conservation measures related to air conditioning. As indicated under Energy Measures, storage for recyclable solid wastes could be provided if space exists when building plans are finalized. An economizer cycle permitting the use of outside air for space conditioning when temperatures are appropriate would be included in the proposed project.

Sentence 2 in column 1 on page 148 has been changed to read:

> "Energy conservation features would include insultation of exterior walls and roof, sealing of the building envelope, variable volume air conditioning, an economizer cycle on air systems permitting the use of outside air for space conditioning when temperatures are appropriate, dual level lighting controls and recessed fixtures."

25. Growth Inducement and Housing

COMMENTS

Sue Hestor:

" What about (the) relationship of (the) project to the elements of the Comprehensive Plan dealing with housing? What will be (the) net shortfall in housing supply in San Francisco?

...What is the amount of regional growth? Where is the housing located that will sustain the growth? Who, by income, can afford that housing? Who, by income, will get these jobs? What is the impact on Oakland, especially downtown near BART, of the explosion of office space in San Francisco -- buildings that could be built in Oakland instead?

Show, by income level, new tenants and where they can find housing. Have you checked with other counties to find out whether they have housing for these workers? If yes, where? If no, why not?"

Carl Imparato:

"The project sponsor has a regional responsibility and not just a city-wide responsibility. A serious discussion of the jobs/housing imbalance should be in the Final Environmental Impact Report."

John Elberling:

"Under the discussion of growth inducement and the discussion of the housing impact as well, we'd like to see the impact expressed in terms of what part of the housing market. Are we talking about a housing demand for lower, moderate, middle, or upper income, and what percentage of the employees? How many moderate income units will be demanded by this project besides how many market rate units, and we'd also like to see some consideration given in answering these questions to the multiplier effects of the other employees indirectly created by this project."

RESPONSE

Housing objectives and policies contained in the Residence Element of

the San Francisco Comprehensive Plan do not relate specifically to the proposed project or the downtown area and therefore are not cited in the DEIR.

The following has been added at the end of paragraph 1 on page 86:

> "Office space has been constructed in the Bay Area at a faster pace outside of San Francisco. Approximately 23.7 million square feet of space was built outside of the City in the Bay Area between 1970 and 1979 at a rate of approximately 2.4 million square feet per year.[1]"

The corresponding footnote has been added at the bottom of page 86:

> "[1]Association of Bay Area Governments, Bay Area Office Growth, May, 1981."

The discussion on page 141 regarding growth inducement and increased housing demand as a result of the proposed project is based on total employment at the project site and includes both direct and indirect jobs generated by the project. The demand for housing associated with net on-site employment increases would be for 600 units.

The following has been added as paragraphs 3 and 4 on page 141:

> "Of the net increase of 2700 additional jobs on the site, 40% or 1080 would be expected to be held by San Francisco residents. Although some of these jobs would be expected to be taken by persons who already live in the City, the increased demand for housing which would result if all jobs were taken by new persons moving to the City is estimated at 600 units. The demand for housing disaggregated by income level and price of units cannot be accurately determined; however, generally lower-salaried downtown employees tend to live in the City, while higher-salaried employees tend to live in the suburbs outside of the City.[3] More downtown workers could afford to rent than buy housing in San Francisco.
>
> Cumulative housing demand resulting from downtown development has been estimated at 17,200 units by 1985.[4] Between 5,000 to 8,000 new units are expected to be built, resulting in a shortfall of approximately 9,000 to 12,000 units. Without substantial new housing construction, increased occupancy of existing housing or displacement of existing residents, not all new households seeking housing in the City would be able to obtain it. If this is the case, downtown office workers would seek housing in other Bay Area housing markets depending on their incomes and preferences and the proportion of workers who live in San Francisco would decline. The City's

job/housing imbalance would increase, thereby contributing to increased commuting, traffic congestion, fuel consumption, air quality deterioration, and housing costs."

The following footnotes have been added on page 141:

"[3]San Francisco City planning Commission, Final Environmental Impact Report, Five Fremont Center, EE 80.268, December 12, 1980, pg. 89.

[4]Ibid. pg. 92."

See also topics 17 and 30.

26. Mitigation, Transportation

COMMENTS

Carl Imparato:

"Regarding mitigation, the Draft EIR proposes no mitigation for parking impacts.

It proposed no mitigation for the impacts on regional transit systems."

Howard L. Goode:

"In addition, BART staff suggests and would also encourage the onsite sale of BART tickets and other transit passes, and encourages employer tenants to subsidize those tickets where possible."

John West:

"The listed transportation mitigation measures all seem to have merit but the mitigation measures have not clearly been evaluated for their own environmental effects and there is no evaluation of the effectiveness of the measures to assure a reasonable service level or even to maintain the levels that now exist.

On page 146 under Measures Recommended and/or Under Consideration, closing Sansome Street between Sutter and Bush and its redesign as a pedestrian/transit mall is mentioned. Since Sansome Street is designated as a Transit Preferential Street (Figure 28), Major Thoroughfare (Figure 29), and Street to Be Improved As Bicyle Route (Figure 30), this closure does not seem reasonable or logical. It would seem that such a closure would have adverse effects on transit and traffic and therefore should not be listed under mitigation."

President Rosenblatt:

"A couple of other comments. In the mitigation section or in the alternatives, there should be some review of means to deal with the indicated impacts of short-term parking and of loading, both of which are discussed as having potentially significant impacts."

RESPONSE

Under Section 161 of the Planning Code, no off-street parking is required for any use, other than housing, in the C-3 district. City policies contained in the Transportation Element of the San Francisco Comprehensive Plan discourage vehicular traffic and long-term parking facilities in the downtown core area (San Francisco City Planning Commission, Resolution 6834, adopted 27 April 1972, The Comprehensive Plan, The Plan for Transportation, Downtown Transportation Plan, Objective 1, Policies 3 and 6, page 7).

Transportation mitigation measures are listed on pages 145 and 146 of the DEIR. Mitigation measures for impacts on regional transit systems include direct access to BART/MUNI, provision of BART tickets and MUNI passes to construction workers, encouraging efforts to implement a flex-time system by keeping the building open during extended hours and provision of carpool and vanpool information.

The following sentence has been added to Table 13, Mitigation Measures, page 146 under measures recommended and/or under consideration corresponding to transportation:

> "The project sponsor could encourage on-site sale of transit passes and urge or require employer tenants to subsidize those tickets where possible."

The following has been added as a new paragraph on page 101 after paragraph 1:

> "The redesign of Sansome Street between Sutter and Bush, if pursued by the City, would continue to permit access by transit with closure only to private automobiles. Vehicular traffic could increase collectively on other streets in the vicinity by 11% to 22% if Sansome Street were closed. Although identified in the Center City Circulation Program, this measure remains under consideration with implementation depending on initiation by the City. The project sponsor is not actively seeking the implementation of this measure, but would cooperate, if pursued by the City as indicated on page 146 (City of San Francisco Transportation Policy Group, Center City Transportation Program, Preliminary Improvement Program, December 1979, Project Number 69).

Mitigation measures for short-term parking and loading are discussed on pages 145 and 146 of the DEIR. The provision of additional loading spaces and a separate loading dock for small vehicles were rejected due to the lack of space. A building directory in the loading area is under consideration.

27. Mitigation, Housing

COMMENTS

Carl Imparato:

"But most seriously the project sponsors declare their intention to provide no mitigation whatsoever for the serious housing impacts that this project would bring about. This project according to this Draft Environment Impact Report would create a demand for 910 more housing units -- almost one full year's supply. Yet Page 149 declares that 'the provision of housing units or contributions to a Housing Development Fund . . . was rejected by the project sponsor as too costly in view of the high cost to preserve the One Sansome facade.

Now that's really galling because that statement indicates a total disregard for up to 910 families who are going to be dislocated due this project's growth-inducing impacts. Because this developer wants to build on a landmark site, it happens to have the additional responsibility of providing historic preservation. Citibank can't just come out and say, 'Now, I'm going to trade housing mitigation for preservation mitigation.' Citibank knew full well that its project would create impacts in both areas, and now it's responsible for mitigating impacts in both areas if that project is going to be built. Citibank knew that and shouldn't shirk housing responsibility for the housing impacts of its projects.

In line with this I would like to remind the Commission that the David Jones study showed that a downtown office building in New York would pay almost five and a half times as much in municipal taxes as one built in San Francisco. So there's a lot of money available to get mitigation measures in both areas. If the mitigation turns out to be too costly, then the project may simply be one that shouldn't be built. But the option for that sort of housing mitigation should be in the Final Environmental Impact Report for this Commission's consideration."

Sue Hestor:

"Housing is absolutely required -- this is not a trade-off for preservation -- where are the tenants going to live?"

Commissioner Kelleher:

"On Page 149 under Growth Inducement, it mentions that the costs to save the facade of the building would be $45 million. That means that the rest of the building would go up at about $50 a square foot. Those figures seem out of proportion to me, and I would like that a little better estimated."

RESPONSE

The discussion on page 141 regarding the demand for 910 housing units as a result of the proposed project was based on total employment at the project site and includes both direct and indirect jobs generated by the project. The demand for housing associated with net on-site employment increases would be for 600 units. See topic 25.

Although the project sponsor may reject a mitigation measure, the Planning Commission may require it as a condition of approval. The following has been added at the end of paragraph 1 on page 142:

> "Although the project sponsor may reject a mitigation measure, the Planning Commission may require it as a condition of project approval."

The following has been added to Table 13 Mitigation Measures under measures recommended and/or under consideration for Growth Inducement:

> "The project sponsor could make available financial assistance for or otherwise cause the construction and/or rehabilitation of housing units in San Francisco through its subsidiary Citicorp Community Development Inc. or in conjunction with interested housing developers to alleviate the net increase in housing demand attributable to the proposed project as a result of on-site employment increases. The appropriate methods and number would be determined in cooperation with the Department of City Planning."

Paragraph 3 on page 149 under measures rejected (and reasons for rejection) corresponding to Housing has been deleted; the figure "$45 million" should have been "$5 million."

28. Significant Environmental Effects

COMMENTS

Jonathan Malone:

"Page 150/A. The EIR should deal with the cumulative effect of the loss of architecturally and historically significant buildings in the

downtown. This evaluation should be standard in all EIR's on projects involving such structures."

Carl Imparato:

"This section (Significant Effects of the Project) completely sloughs over the significant impacts which project approval would have. It doesn't mention the parking impacts downtown and City-wide. It doesn't mention the increase in MUNI loading factors, displacement of residents, gentrification, slower MUNI service to name a few of the impacts. That section is supposed to be a summary of significant project impacts both individually and as a part of cumulative development. As currently written, then, that summary is deficient and misleading."

RESPONSE

The following has been added to page 66 as paragraph 3:

> "The proposed project would contribute incrementally to the loss of architecturally and historically significant buildings in the downtown area. Cumulative development under construction or proposed would involve the loss of approximately 11 architecturally and/or historically significant buildings in the downtown area."[2]

The following footnote has been added at the bottom of page 66 to correspond with the added text:

> "[2]Includes the following buildings contained on the list of architecturally and/or historically significant buildings adopted by the City Planning Commission Under Resolution #8600, 29 May 1980: 280 and 353 Battery (Daon Building), 301 and 341 California (Dollar Block), 350 Bush (Russ Building), 46 and 60 Kearny (S.F. Federal), 610 Market (Hunt-Knight), 50 Fremont (Five Fremont), 1 Sansome and 58 Sutter (One Sansome)."

The last sentence at the end of paragraph 1 on page 150 under section A, Historical/Cultural has been revised to read:

> "The loss of One Sansome (Anglo and London Paris National Bank) would reduce the number of monumental banks in the Financial District and would contribute incrementally to the loss of architecturally and historically significant buildings in the downtown area."

The following has been added on page 150 as Section B, Urban Design:

> "The project would be taller and more visually prominent than existing structures on the site. It would be visible in the City skyline from higher elevations to the east and south."

Paragraph 2 on page 150 has been changed to Section C, Transportation. The last sentence has been revised to read:

> "The project would increase local transit ridership and load factors by approximately 2.5% Pedestrian service levels would be reduced along adjacent sidewalks and at crosswalks in the vicinity of the site. The project would generate a demand for 690 long-term and 205 short-term parking spaces."

The last paragraph on page 150 has been changed to Section D, Climate and Air Quality. The third paragraph on page 151 has been changed to Section E, Noise and the fourth paragraph has been changed to Section F, Energy.

The following has been inserted after paragraph 4 on page 151 as Section G, Economic and Fiscal:

> "The project would result in a net increase of approximately 657,600 gross square feet of floor area and 2,700 employees on the site. Project construction would provide about 600 person years of construction labor. The net increase in on-site employment would contribute to increased housing demand for about 600 units."

The last paragraph on page 151 has been changed to Section H, Cumulative Development.

29. Alternatives

COMMENTS

Carl Imparato:

"The housing impacts of the alternatives which are discussed have been left out of the table which compares the different alternatives. That's on Pages 176 and 177; these impacts must be included in the table in the Final EIR."

Commissioner Bierman:

"I couldn't find square footage of the alternatives, and I think we need that, particularly of Alternative 1. But I think the other alternatives should have the square footage as well as what it does have, which is its height."

Commissioner Karasick:

"On the book on Page 162, in the first paragraph it says this alternative will contain about one third the square footage of the proposed project and yet it also says in the same paragraph that it is 474,000 square feet, which if you multiplied that by three would not be anywhere near 728,000 square feet."

John West

"As disclosed in the document, the building site has an important historical legacy in the banking industry. Perhaps an explanation of why it is proposed to preserve the facade of the existing building and relocating the banking facilities on the mezzanine floor of the proposed building rather than maintaining the banking facility in the traditional main lobby could be included in the text."

Gray Brechin

"There is no discussion of the feasibility of saving any of the interior as, for example, the sponsor of 456 Montgomery, the Kam Chan Overseas Corporation, proposed in their project...

On pages 153 through 157, there is an Alternative 1 which involves the complete preservation of One Sansome. The statement is made on Page 154 that under this alternative 'No retail or public open space would be provided.'

The ground floor plan on Page 157 suggests that this alternative has not been seriously considered when compared with the extensive floor plans of the desired project because no uses are identified. Would this space be used for commercial or office space under this scheme?

On Page 154, the alternative is rejected partly because 'in their architect's opinion, (the alternative's) poor relationship to the Equitable and Standard Oil Buildings compared to the proposed project.' The previous sentence, however, states that the alternative would 'preserve more views from the Standard Oil Building than the proposed project,' which does not seem to be undesirable.

. . . In addition, the project architects and the sponsor do not believe that the relationship between the existing building and the new tower would be aesthetically attractive.

We feel that the opinions of other authorities should be consulted in this matter -- we only have the opinion of the architect and the sponsor -- especially since the facade articulation of the proposal and the alternative are virtually identical."

RESPONSE

The discussion on page 141 regarding growth inducement and increased housing demand as a result of the proposed project is based on total employment at the project site and includes both direct and indirect jobs generated by the project. The demand for housing associated with net on-site employment increases would be for 600 units. See topic 25.

The following has been added to Table 14 Comparative Impact Summary on page 176-177 Economic/Fiscal, corresponding to Housing Demand:

Under proposed project:	"On site employment increases caused by the project could increase housing demand by about 600 units."
Under Alternative 1:	On-site employment increases caused by the alternative could increase housing demand by 400 to 480 units.
Under Alternative 2:	"Same as proposed project."
Under Alternative 3:	"On-site employment increases caused by the alternative could increase housing demand by about 380 units."
Under Alternative 4:	"The existing housing demand derived from on-site employment is about 80 units. There would be no increase in demand for additional units due to increases in on-site employment."

Square footages and FARs for each alternative are shown on Table 15, page 178 and have been added to Table 14 on pages 166-167.

Sentence 6 on page 162 has been revised to read as follows:

> "This alternative would contain about 1/3 less floor area than the proposed project."

The proposed project would require demolition of most of the existing One Sansome Building including its interior banking hall. New retail or banking space would be provided on the mezzanine level of the proposed tower, however, the provision of space for banking use is not a primary objective of the proposed project. The project sponsors would not occupy banking space in the proposed project. Existing banking facilities would be maintained under Alternative 1 with complete preservation of the One Sansome Building. The project sponsors' reasons for rejection of Alternative 1 are discussed on page 154.

Alternative 1, discussed on pages 153-154 and depicted on pages 155-157, and historic preservation schemes #1, 2, 3, and 4 cited on page 152 were investigated in an effort to preserve the interior banking lobby of the existing One Sansome Building. These schemes are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

The ground floor plan of Alternative 1 depicted in Figure 55 on page 157 identifies the existing bank interior which would continue to be used for banking purposes under this alternative. A lobby area would surround the elevator and service core in the adjacent tower. Although this alternative would preserve more views from the Standard Oil Building, the new tower's close proximity to the Equitable Building and cantilever would create a poor relationship to both adjacent properties and the existing building. Neither the consulting architectural historian or other authorities previously had occasion to specifically comment on this issue.

Other reasons discussed on page 154 for rejection of this alternative by the project sponsor include the smaller floor size, reduced obtainable rents, additional construction cost of the cantilever, necessity for Citicorp's occupancy to be spread over additional floors, reduced proportion of leasable office space to gross building area and the likelihood that portions of the existing building would have to be dismantled and reassembled after construction of the new tower.

In addition, the project sponsor's space requirements result in a need for a larger floor area than is possible under Alternative 1 in order to group individual and related departments on the same floors. The San Francisco offices of Citicorp are a regional operation of the North American Banking Group (NABG), who would ultimately occupy 10 floors of the proposed project by 1988. The proposed project represents an optimum floor size to meet the current and projected space needs of the Corporate Finance, Treasury, Securities, and Customer Service Divisions who require close daily interaction, proximity to a common trading area and who should not be fragmented over several floors. The smaller floor size under Alternative 1 would create a fragmented operation spread over 15 instead of 10 floors and would result in inefficiency. Other NABG regional offices with similar functions occupy or are preparing to relocate to buildings with a comparable floor capacity as the proposed project. Other reasons for rejection of Alternative 1 include the necessity of the NABG's occupancy to be split between two elevator banks instead of one under the proposed project, greater fragmentation of departments, increased vertical travel, resulting lower efficiency and morale, additional floor reception and visitor control areas required, lower energy efficiency in HVAC distribution, less efficiency in floor area utilization, greater difficulty in subdivision of smaller floor areas for sub-tenants, less flexibility in interior space planning and

general tenant preferences for larger floor areas (Robert H. Dexter, Vice-President, Citicorp, letter to Dean Macris, Director of Planning, 22 June 1981).

30. Site Alternatives

COMMENT

Carl Imparato:

"In line with the discussion of regional impacts, we also ask that the alternative of locating this project in downtown Oakland be examined. Possibly, the overall impacts would be more positive."

Sue Hestor:

"Evaluate (the) alternative of building in Oakland near BART. One or more with attractive building design plans, please."

RESPONSE

As discussed on pages 152 and 153 of the DEIR, project development at other locations outside of the City were determined to be unsuitable to meet the sponsor's needs. The nature and function of the project sponsor's regional offices, which would occupy several floors of the proposed project, requires close proximity to their corporate customers in finance, investment, securities, real estate, venture capital and currency exchange located in San Francisco's Financial District. Project development in Oakland would be equivalent to Alternative 4: No Project. The two existing buildings would be retained and present uses would continue. Current levels of traffic, parking, transit demand, noise, energy consumption, on-site employment, community service demand, housing demand, and wind, shadow, and visual effects now attributable to the existing buildings would continue to exist. None of the impacts associated with the proposed project would occur at the proposed site. However, the site could not be expected to remain with the present buildings and uses indefinitely. Development of a similar project in Oakland could be expected to contribute to relatively higher levels of traffic, parking, and air quality impacts due to a greater use of automobiles. (Willie Yee, Associate Planner, Oakland Planning Department, telephone communication, 30 June 1981).

31. Design Alternatives

COMMENTS

Carl Imparato:

"We would like to point out that a building which both complies with

interim controls and preserves the One Sansome Building could be built and it should be examined impartially in the Final EIR.

So we request that the Final EIR present the Commission with an alternative which does not utilize these bonuses and that the Commission take a look at what the project would be without those bonuses because you should really consider not giving them those bonuses."

John Elberling:

"We would like to see an alternative that had mixed-use development with housing on-site as well as office space that also saved the One Sansome Building entirely and we would like to see an alternative that as well has a very different kind of building design. We'd like to see if the architect who has graced the City with the Pyramid among other buildings couldn't find something more imaginative than boxy, round corners on Market Street -- and again, the saving of the One Sansome Building.

We'd also like to see at least one alternative that complied with the new set of proposals from the Planning Department staff contained in 'A "Guiding Downtown Development" Alternative.' We'd like to begin to get some ideas as these EIR's are done on a building by building basis of what the implications are of those proposals that your staff has come up with. They are interesting proposals, and we'd like to test them out with actual sites, and so we'd like an alternative that does that."

President Rosenblatt:

"With respect to design of the facility or of the tower, the alternatives either in the EIR or later on in design considerations should review a modification of the top of the building so that it is more sculptured and avoids the south side of Market/lower Marker Street box tops; and the possible use of granite as opposed to the concrete with granite aggregate in it which is proposed, the granite, I would presume, to match the existing One Sansome facade."

RESPONSE

As discussed on page 152 of the DEIR, seven historic preservation schemes were originally undertaken in an effort to preserve all or distinctive elements of the existing One Sansome Building. These seven schemes, including floor plans, elevations, and square footage data are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319. Alternative #1 represents the product of the previous design efforts involving complete preservation of One Sansome. Preservation of the existing building generally was found to restrict possible variations in the design of the tower due to the limited size of the remaining site.

Since publication of the DEIR, the roof profile of the tower has been modified considerably to create a distinctive "step" on the east and west sides, revealing a curved sculptured mechanical enclosure (See revised Figures 7 and 8, pages 56 and 57, DEIR pages 16, 17). The use of granite for the lower floors, to match the existing One Sansome Building, is presently under consideration.

The following has been added to Chapter VII: Alternatives to the Proposed Project as a new section starting on page 179.

E. VARIATIONS IN ALTERNATIVES

1. <u>Alternative 1A: Complete Preservation of One Sansome and Conformance with Interim Downtown Controls</u>

An alternative which both preserves the existing One Sansome Building and complies with interim downtown controls would be limited to an FAR of 14:1 and a gross floor area of 474,000 square feet. It would consist of a structure similar to Alternative #1, but shorter with most impacts similar to Alternative #3. Impacts with regard to wind, views and shadow patterns would be similar to those of Alternative #1. Impacts derived from building occupancy including traffic, transit, housing, air quality, and noise impacts would be similar to those of Alternative #3.

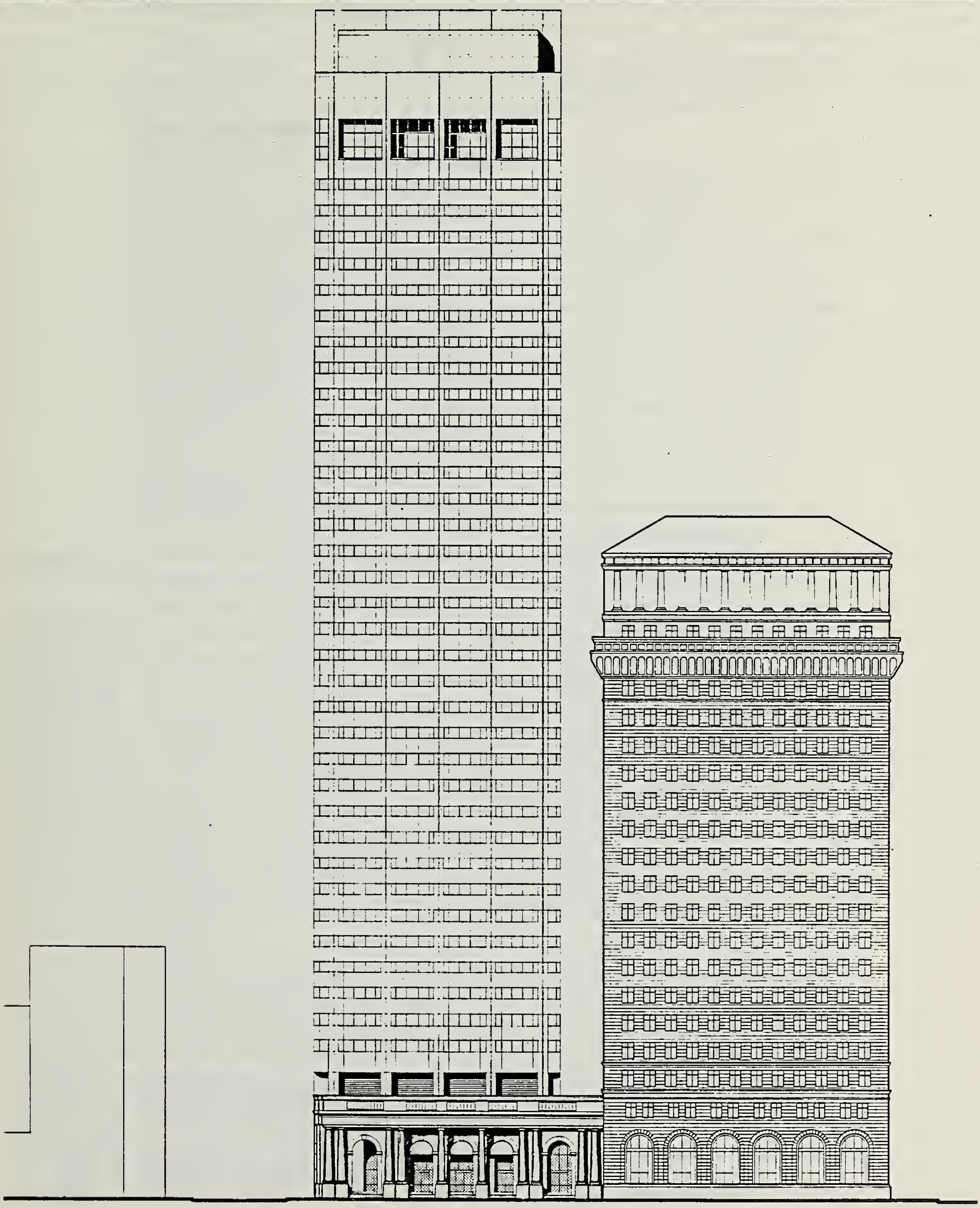
2. <u>Alternative 1B: Complete Preservation of One Sansome and Provision of On-Site Housing</u>

An alternative with housing on-site and complete preservation of the existing One Sansome Building would consist of a structure similar to Alternative #1, but containing housing in addition to office and banking space. Such an alternative would involve a gross floor area of about 655,000 square feet, based on the permissible floor area (see Topic 32). The top 12 floors of the building would be devoted to housing, served by one of the three elevator banks. About 170,000 gross square feet of the building would be used for housing, accommodating approximately 170 dwelling units at 1000 gross square feet per unit, with a maximum population of 340 people at 2 persons per unit on the average. The remaining 485,000 gross square feet would be in office and banking use, or about one-third less than in the proposed project.

figure 7 **PROPOSED ONE SANSOME PROJECT**

Source: WILLIAM L PEREIRA ASSOCIATES PLANNERS·ARCHITECTS·ENGINEERS

SANSOME STREET ELEVATION



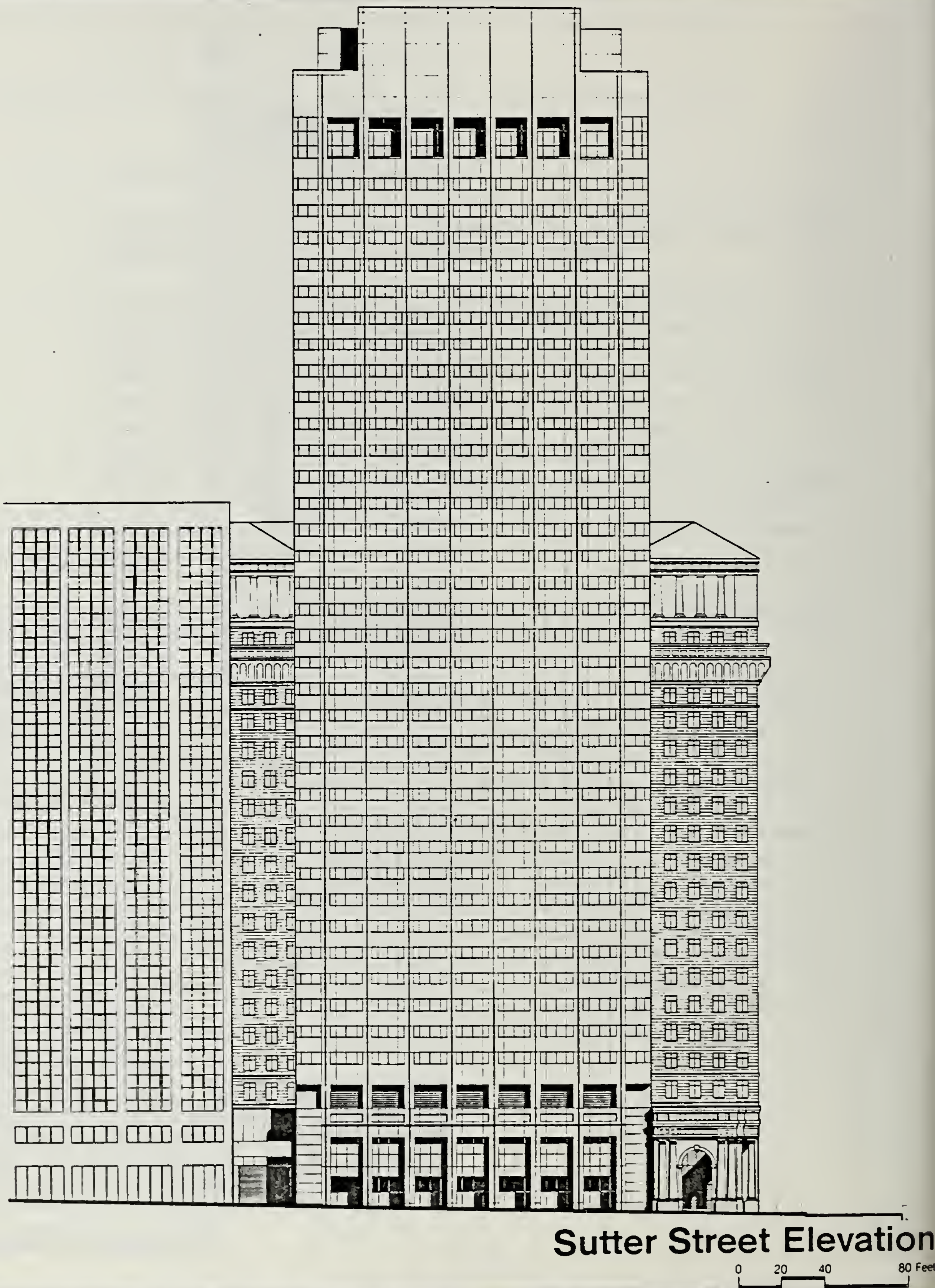
Sansome Street Elevation

0 20 40 80 Feet

figure 8 **PROPOSED ONE SANSOME PROJECT**

Source: WILLIAM L PEREIRA ASSOCIATES PLANNERS ARCHITECTS ENGINEERS

SUTTER STREET ELEVATION



Sutter Street Elevation

It would be necessary to provide 43 parking spaces on-site to serve the residential units (at a ratio of 1 space for each 4 units), in order to meet the requirements of Article 1.5, Section 151 of the Planning Code. Provision of such parking would require excavation for the construction of 2 levels of underground parking, including ramps, under the basement level, as well as relocation of the loading ramps and docks serving the office portion of the building.

Impacts with regard to wind, views, and shadows would be identical to those of Alternative #1. Impacts on regional traffic, transit, parking, air quality, housing and economic and fiscal factors derived from building occupancy for office and banking purposes would be about one-third less than for the proposed project and similar to those for Alternative #1. Impacts on local traffic on streets surrounding the project site could be slightly greater due to the provision of on-site parking and automobile trips by residents; on the assumption that each parked automobile is used for 4 trips per day (2 out, 2 in) primarily for non-work trips during non-peak periods, traffic around the site would not increase substantially, and all streets would remain at Level of Service A. Additional pedestrian trips would be generated by residents making work trips during the morning and afternoon peak periods. On the assumption that 60% of the residents return to the building during the afternoon peak hour, about 200 additional pedestrian trips would be generated during the p.m. peak hour. This increase in pedestrian trips during the peak hour would be about 10% of the 2169 pedestrian trips which would otherwise be generated by office space under the proposed project The total number of pedestrians generaged under this alternative would be approximately 1630 or 25% less than the 2169 pedestrian trips generated by the proposed project (see Table F-18, p. 239 of the DEIR). The total number of pedestrian trips generated under this alternative would be approximtely 1630 or 25% less than the 2169 pedestrian trips generated by the proposed project.

It could be expected that on-site residents would be more likely to use transit and walking to go to work and to make non-work trips, but there is no basis for estimating the probable share of trips by each mode. Those residents using transit to go to and return from work, in virtually all cases, would be traveling during the peak periods in the reverse direction from the primary commute direction, thereby reducing impacts on peak-hour transit loading due to its downtown location.

Impacts on energy and water consumption could be expected to be slightly higher for residential use than for office use of the same space. Revenues to the City are likely to be slightly lower and fiscal impcts related to transit demand would be negligible.

3. Alternative 1C: Conformance with New Proposals for Regulation of Downtown Development Contained in Guiding Downtown Development

An alternative conforming to new proposals prepared by the Department of City Planning for regulation of downtown development contained in Guiding Downtown Development would be limited to an FAR ranging between 12:1 and 17:1 with a gross floor area ranging from 406,000 to 576,000 square feet. Proposals contained in Guiding Downtown Development establish a base FAR of 12:1 in the present C-3-0 district. The base FAR could be exceeded only by:

(1) incorporating housing into the project;

(2) transferring unused development rights from another site containing a landmark or other significant building; and/or

(3) including convenience retail space in the project.

(San Francisco Department of City Planning, Guiding Downtown Development, May 1981, page 3). The maximum FAR with allowances would be 17:1.

An alternative conforming to these new proposals could consist of a structure similar to Alternative #1 with complete preservation of the existing One Sansome Building permitting an FAR of no more than 15:1 and gross floor area of 508,300. The profile of the tower would be slightly more sculptured and articulated as a result of requirements for downward bulk transfer. Impacts would be similar to those described in Alternative #1.

Another alternative conforming to proposals contained in Guiding Downtown Development would consist of a structure limited to an FAR of 12:1 and a gross floor area of 406,600 square feet. The structure would be similar to Alternative #3, but shorter with more sculpturing and articulation of the building form. Impacts derived from building occupancy would be approximately 14% less than those described for Alternative #3. Impacts with regard to winds, views and shadows would be similar to Alternative #3.

32. Text Change Initiated by Staff of Department of City Planning, Alternatives

The description of Alternative 1 has been revised to indicate the range of potential height and floor area, and associated impacts, for Alternative 1 if permissible floor area were to be maximized without regard to final adjustments which might be required with respect to elevator design and capacity and creation of useable floor area.

The last paragraph on page 153 (continuing to page 154) has been revised to read:

> "This alternative would involve complete preservation of the existing One Sansome Building with demolition of the Holbrook Building and construction of a 38-story to 44-story square office tower on the site. The tower would cantilever 25 feet over the existing One Sansome Building, with an indentation at the base of the new tower to minimize design and scale conflicts between the new and existing buildings. The height of the tower would be from 530 feet to 600 feet, or from 25 feet lower to 40 feet higher than the proposed project, depending on final decisions on location of mechanical equipment and ability to provide adequate elevator capacity. The gross floor area, including the existing building, would range from about 529,000 square feet to a maximum of 655,100 square feet, or from 280,000 square feet to 73,000 square feet less than the proposed design. The tower would have a typical floor size of 14,160 gross square feet with an occupiable area of 11,900 square feet per floor. No retail or public open space would be provided. Elevations and ground floor plan for this alternative (on the assumption of the lower height and smaller floor) are shown in Figures 53-55."

In accordance with the previous change, the first row of "Description" in the portion of Table 14, page 166, for Alternative 1 has been revised to read:

> "38 to 44-story office tower, 530 to 600 ft. high; cantilevered over existing One Sansome Building; 529,000 to 655,000 gross floor area; FAR, 15.6:1 to 19.3:1".

Under Transportation on Table 14, page 170, the numbers 30% and 29% for Alternative 1 have been revised to read "16% to 30%" and "16% to 29%" where those numbers appear in rows 2, 4, 5 and 6. Under Economic/Fiscal on page 176 the number 2175 for employment has been revised to read "2175 to 2600," housing impacts have been revised to "400 to 480 units" and the number $886,000 for property tax revenues under Alternative 1 has been revised to read "from $886,000 to $1,035,000."

Table 15, DEIR page 178, has been revised to correspond with the changes noted above (see page 61).

TABLE 15
COMPARISON OF KEY INDICATORS: PROPOSED PROJECT AND ALTERNATIVES

					Alternative 4 No Project	
	Proposed Project	Alternative 1	Alternative 2	Alternative 3	One Sansome	Holbrook Building
Gross Constructed Area (Square Feet)	819,700	619,700 - 750,000	819,700	564,000	34,000	118,300
Gross Floor Area, Excluding Mechanical and Basement (Square Feet)	728,200	529,000 - 655,100	728,200	474,000	NA	NA
Floor Area Ratio	21.5:1	15.6:1 - 19.3:1	21.5:1	14:1	NA	NA
Occupiable Floor Space (Square Feet)	621,100	444,400 - 530,800	621,100	419,500	20,000	80,300
° Office	603,700	410,400 - 496,800	603,700	413,000	NA	69,800
° Retail/Banking	17,400	34,000	17,400	6,500	20,000	10,500
Percent Occupiable	85%	84% - 80%	85%	89%	59%	68%
Typical Office Floor (Square Feet)	19,700	14,160	19,700	19,700	NA	11,600
Percent Leasable Office Floor	90%	88% - 86%	90%	93%	NA	69%
Building Dimensions						
° Height (Feet)	559	533 - 608	559	374	36	99
° Length (East-West) (Feet)	168	120	168	168	138	138
° Width (North-South) Feet)	118	118	118	118	123	122
° Diagonal (Feet)	199	168	199	199	NA	NA
Number of Stories	40	38 - 46	40	26	2	7
Estimated Employment at Full Occupancy	3100	2175 - 2600	3100	2075	124	367
Public Open Space	Yes	No	Yes	No	NA	NA
Preservation						
° One Sansome Building	No	Yes	No	No	Yes	NA
° Sansome Street Facade of One Sansome	Yes	Yes	Yes	No	Yes	NA
° Sutter Street Facade of One Sansome	Partial	Yes	Yes	No	Yes	NA
° Holbrook Building	No	No	No	No	NA	Yes
Estimated Construction Costs[1] (Thousands of Dollars)	$62,379	$47,343 - $57,300	$63,438	$39,187	NA	NA
Estimated Construction Costs Per Occupiable Square Foot	$100.43	$106.53 - $107.95	$102.14	$93.41	NA	NA

NA = Not available or not applicable

[1]T. Ray, Swinerton & Walberg Co., letter communication, 31 October 1980

33. <u>Text Change Initiated by The City Planning Commissioner Richard Sklar, Muni Impacts, If Expanded Capacity is Not Available</u>

Potential transit impacts if MUNI service is not increased according to the MUNI 5-Year Plan have been analyzed at the request of staff. As indicated on page 95 of the DEIR, if expected increases in MUNI capacity cannot be made, overloading of vehicles would result and secondary effects could be expected, including greater use of automobiles. If funding sources are unavailable to provide expanded capacity, fare increases other than those required by inflation of costs and by State legislation on farebox requirements would be necessary. Increased fares would also result in some riders shifting to automobiles.

If all persons who cannot be accommodated by MUNI shift to automobiles, about 2070 additional peak hour person-trips generated by cumulative downtown development (including the proposed project) would be by automobile in 1984. These trips can be viewed as equivalent to a 23% increase in peak hour automobile trips (1480) generated by cumulative downtown development, including the proposed project. If the proposed project is viewed as coming on line after other development has used up its share of MUNI capacity, the proposed project may be considered to generate 370 additional peak hour person-trips by automobile, or 265 additional vehicles (a 40% increase). Correspondingly, traffic on streets surrounding the project would increase by 9% - 25% and could decrease the Level of Service on Sansome and Sutter Street from A to B. Market Street would remain at Level of Service A. The equivalent of approximately 265 additional long-term parking spaces would be required by the proposed project and 1480 spaces by cumulative downtown development, thereby increasing the parking deficit in the downtown area by about 18%. Air quality impacts near the project site would increase by 9% - 25% over what would otherwise result from the proposed project. The proposed project's regional air quality impacts and energy consumption would be the equivalent of 8% higher than shown on DEIR, page 120, while impacts attributable to cumulative downtown development would be approximately 2% higher.

Paragraph 1 after sentence 1 on page 95 has been revised to read:

> "As a result of limited availability of General Fund support and expected Federal funding reductions, MUNI may be unable to fund the proposed capacity increases or provide maintenance services for existing facilities.[2] If capacity is not increased, MUNI would not be able to accommodate the equivalent of 370 peak hour trips generated by the proposed project and the equivalent of 1480 trips generated by cumulative downtown development (including the project). If new funding sources are unavailable to finance expanded capacity, MUNI fares would have to increase at a rate in

excess of that required to meet inflation of costs and State farebox requirements. Higher fares would result in some additional persons switching to automobiles. In addition, without expanded capacity, secondary effects could be expected such as shifts to other travel times or relocation of employers. Increased auto and pedestrian traffic would add to street congestion and could result in a slowing down of MUNI operations, further increasing costs and encouraging others to shift to automobile use."

The following footnote has been added to the bottom of page 95:

"2 San Francisco Municipal Railway 5-Year Plan, 1981-86, June 23, 1981, pages 3, 12, 13, 22, 111-121."

Footnote #2 has been changed to #3.

The following has been added after sentence 4 in paragraph 3 on page 99:

"If MUNI is unable to expand its capacity as expected, the number of p.m. peak hour automobile trips attributable to the proposed project could increase by the equivalent of 265 vehicle trips. The number of p.m. peak hour automobile trips attributable to cumulative downtown development could increase by the equivalent of 23%."

The following has been added after sentence 3 in paragraph 1 on page 101:

"Traffic on streets surrounding the project site could increase by an additional 9% to 25% if MUNI service is not increased as planned."

The following has been added after sentence 2 in paragraph 4 on page 104:

"If MUNI is unable to expand its capacity, 265 additional long-term parking spaces would be required as a result of increased automobile use."

The following has been added after paragraph 1 on page 106 (as revised):

"if MUNI is unable to expand capacity, 1480 additional long-term parking spaces would be required by cumulative downtown development."

The following has been added at the end of paragraph 2 on page 118:

> "Without expanded MUNI service, increased automobile use would also result in carbon monoxide levels approximately 8% higher than what would otherwise occur near the site."

The following has been added at the end of paragraph 1 on page 121:

> "Regional air quality impacts would increase by 2% if MUNI is unable to expand capacity, resulting in greater automobile use."

Change sentence 2, paragraph 1 on DEIR page 142, to read as follows:

> "Many of these measures have already been adopted and voluntarily incorporated into the planning and design of the proposed project."

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Sacramento CA 95814
William Lockett

Caltrans
1120 N. Street
Sacramento CA 95814

State Office of Historic Preservation (2)
PO Box 2390
Sacramento CA 95811
Dr. Knox Mellon
Nick del Ciappo

State Office of Intergovernmental Management (10)
State Clearinghouse
1400 Tenth Street
Sacramento CA 95814

REGIONAL AGENCIES

Alameda-Contra Costa Transit District
508 - 16th Street
Oakland CA 94612

Association of Bay Area Governments
Hotel Claremont
Berkeley CA 94705

Bay Area Air Quality Management District
939 Ellis Street
San Francisco CA 94109

Bay Area Rapid Transit District
800 Madison Street
Oakland CA 94607
Barbara Neustadter
Ward Belding

Golden Gate Bridge Highway and Transportation District
PO Box 9000, Presidio Station
San Francisco CA 94129

Metropolitan Transportation Commission
Hotel Claremont
Berkeley CA 94705

San Mateo County Transit District
400 South El Camino Real
San Mateo CA 94402

LIBRARIES

Environmental Protection Agency Library
215 Fremont Street
San Francisco CA 94105
Jean Circiello

Hastings College of the Law Library
198 McAllister Street
San Francisco CA 94102

San Francisco City College, Downtown Center
Fourth and Mission Streets
San Francisco CA 94103

San Francisco Public Library
Main Library, Civic Center
Documents Department
200 Larkin Street
San Francisco CA 94102
Faith Van Liere

San Francisco State Library
Government Publications
San Francisco State University
1600 Holloway Avenue
San Francisco CA 94132

Stanford University Library
Government Documents Section
Stanford, CA 94305

University of San Francisco
Gleeson Library
Golden Gate and Parker Avenues
San Francisco CA 94115

MEDIA

San Francisco Bay Guardian
2700 - 19th Street
San Francisco CA 94110

San Francisco Chronicle
925 Mission Street
San Francisco CA 94103
Marshall Kilduff

San Francisco Examiner
110 Fifth Street
San Francisco CA 94015
Gerald Adams

San Francisco Progress
851 Howard Street
San Francisco CA 94103
Mike Mewhinney

The Sun Reporter
1366 Turk Street
San Francisco CA 94115

KCBS, News Radio
1 Embarcadero Center
San Francisco CA 94115

KGO, Channel 7 (News)
277 Golden Gate Avenue
San Francisco CA 94102

KPIX, Channel 5 (News)
2655 Van Ness Avenue
San Francisco CA 94123

KQED, Channel 9 (News)
500 Eighth Street
San Francisco CA 94123

KRON, Channel 4 (News)
1001 Van Ness Avenue
San Francisco CA 94109

KTVU, Channel 2 (News)
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Oakland CA 94607

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Northern CA Chapter
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San Francisco CA 94104

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Crocker National Bank
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Rita Giglo
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District 11 Residents Association
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William Dauer

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San Francisco CA 94103
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San Francisco CA 94111
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Women's Chamber of Commerce
681 Market Street, Room 922
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SAN FRANCISCO

CITY PLANNING COMMISSION

RESOLUTION NO. 9084

WHEREAS, A draft environmental impact report, dated April 10, 1981, has been prepared by the Department of City Planning in connection with EE78.334 One Sansome: A 40-story office building with retail area, containing 728,000 square feet on the property described as follows:

EE78.334 One Sansome Street, northwest corner of Sansome and Sutter Streets, Lots 3 and 4 in Assessor's Block 289; and

WHEREAS, The Department duly filed a notice of completion of the draft report with the Secretary of California Resources Agency, gave other notice and requested comments as required by law, made the report available to the general public and satisfied other procedural requirements; and

WHEREAS, The City Planning Commission held a duly advertised public hearing on said draft environmental impact report on May 14, 1981, at which opportunity was given for public participation and comments; and

WHEREAS, A final environmental impact report, dated August 6, 1981, has been prepared by the Department, based upon the draft environmental impact report, any consultations and comments received during the review process, that raised significant points concerning effects on the environment, all as required by law; and

WHEREAS, On August 6, 1981, the Commission reviewed the final environmental impact report, and found that the contents of said report and the procedures through which it was prepared, publicized and reviewed comply with the provisions of the California Environmental Quality Act, the Guidelines of the Secretary for Resources and San Francisco requirements;

THEREFORE BE IT RESOLVED, That the City Planning Commission does hereby find that the Final Environmental Impact Report, dated August 6, 1981 concerning EE78.334 One Sasome is adequate, accurate and objective, and does hereby CERTIFY THE COMPLETION of said Report in compliance with the California Environmental Quality Act and the State Guidelines;

AND BE IT FURTHER RESOLVED, That the Commission in certifying the completion of said Report does hereby find that the project as proposed will have a significant effect on the environment in that it will require partial or complete demolition of two buildings of significant architectural or historical merit, increase in transit ridership and pedestrian and vehicular traffic. The project will contribute to the cumulative and air quality and housing impacts produced by development approved and under construction in the downtown area.

CITY PLANNING COMMISSION

RESOLUTION NO.9084
Page Two

I hereby certify that the foregoing Resolution was ADOPTED by the City Planning Commission at its regular meeting of August 6, 1981.

Lee Woods, Jr.
Secretary

AYES: Commissions Bierman, Karasick, Kelleher, Klein, Nakashima, Rosenblatt, Salazar

NOES: None.

ABSENT: None.

PASSED: August 6, 1981.

APPENDIX A: CHARACTERISTICS OF CLEAR, TINTED AND REFLECTIVE GLASS

Selected characteristics of clear, tinted and reflective glass are shown in Table A-1. Tradenames for glass products differ among manufacturers, however the range of products available are similar.

Tinted glass possesses an apparent one-way effect inversely proportional to its light transmittance. This helps to give a uniform appearance to buildings viewed from outdoors during daylight hours by masking variable colors and positions of draperies, blinds and indoor colors.

Reflective-coated glass is glazed on the outdoor side with a transparent metallic oxide coating. The coating is durable, light and heat reflective, which reduces solar heat gain and offers energy savings. "Solarcool" glass is tinted PPG glass coated with a metallic oxide coating and which may be cut and fabricated like ordinary glass. "LHR" glass is a heat-processed glass with a highly reflective metal oxide surface, which cannot be cut or altered after its manufacture.

The "Solarcool Gray" glass was selected for the proposed project for its ability to be shaped to the requirements of the project for curved glass at the corners, its relatively high transmittance value and its contribution to energy conservation through relative resistance to heat gain.

TABLE A-1

SELECTED CHARACTERISTICS OF CLEAR, TINTED AND REFLECTIVE GLASS[1]

		Reflectance		U-Value[2] (Btu/Hr-S.F.)			
	Transmittance	Outdoors	Indoors	Winter Nighttime	Summer Daytime	Shading[3] Coefficient	Relative Heat Gain (Btu/Hr-Sq.Ft.)
CLEAR GLASS	89%	8%	8%	1.13	1.04	0.95	204
TINTED GLASS							
Graylite	14%	5%	5%	1.13	1.11	0.65	146
Solarbronze	52%	6%	6%	1.13	1.10	0.71	157
Solargray	41%	6%	6%	1.13	1.10	0.69	154
Solex	75%	7%	7%	1.13	1.10	0.69	154
REFLECTIVE-COATED GLASS							
Solarcool Bronze	21%	35%	14%	1.13	1.10	0.45	105
Solarcool Gray*	17%	35%	10%	1.13	1.10	0.44	103
Solarcool-GL (Graylite)	5%	36%	5%	1.13	1.10	0.42	99
LHR Bronze	30%	34%	13%	1.13	1.09	0.53	120
LHR Gray	24%	34%	10%	1.13	1.09	0.50	116
LHR Solex	43%	20%-32%	20%-32%	1.13	1.10-1.12	0.50-0.55	116-126
LHR Clear	54%	24%-31%	24%-31%	1.13	1.05-1.06	0.71-0.73	157-162

[1]For glass thickness 1/8 inch

[2]U-Value: The overall coefficient of heat transmission or thermal transmittance in Btu/hr-sq.ft.

[3]Shading Coefficient: The ratio of solar heat gain through a glazing system to solar heat gain through a single pane of double strength (1/8 inch thick) sheet glass under the same set of conditions.

*Proposed for use in project

Source: PPG Industries, Technical Service Report No. 130: Tinted and Reflective Glass

William L. Periera Associates, memorandum, 1 October 1980

APPENDIX B: ARCHIVAL RESEARCH FINDINGS ON ARCHAEOLOGICAL REMAINS

Prepared by Charles Hall Page and Associates, Inc., 364 Bush Street, San Francisco, California, under the direction of Charles Hall Page, President and Charles Hasbrouck, Staff Historian.

The objective of this review is to determine through historic and archaeological archival research whether any subsurface remains are likely to exist beneath the sites identified as One Sansome and 58 Sutter which would be of historic or archaeological significance. Based upon the evidence presented here, conclusions are drawn concerning the probability of sub-surface remains of archaeological or historical interest.

The location of the sites One Sansome and 58 Sutter, as described elsewhere in this report, is northwest of the intersection of Sutter, Sansome and Market Streets. Each lot is approximately 137 x 122 feet in size. The site of One Sansome is located at the corner of Sansome and Sutter. The lot next door, in the mid-block of Sutter between Sansome and Montgomery, is 58 Sutter.

Methodology

Primary sources, such as historical photograph and map collections, and early histories of San Francisco, were examined.[1] A title search was not conducted for this report; research was also not conducted into old public documents, navigation records, newspapers and correspondence. Such research is not readily available or easy to assess. For the purposes of this report further documentation appears unnecessary.

Existing archival research records were used to identify prehistoric sites. The Archaeological Regional Research Center, Cabrillo College, acts as a regional clearinghouse and storage center for recorded archaeological sites and field reconnaissance work performed in San Francisco. According to their archives, no prehistoric site records have been recorded at One San Sansome or 58 Sutter. The approximate location of 2 prehistoric sites was identified by the Archaeological Regional Research Center within a mile of the project site. Two historic sites were identified within a half mile. The

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[1]A list of sources used in preparing this Appendix is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

historic sites appear to be associated with the early development of the city. A number of historic sites have also been recorded in the California Inventory of Historic Resources and California Historic Landmarks. None of the prehistoric or historic sites in the area appear to be directly related to the project site.

The following brief synopsis of San Francisco's early historical development seeks to identify the role which One Sansome and 58 Sutter played in that development. This discussion has been divided into 4 periods according to documented development of these sites:

a. 1835 - 1846
b. 1847 - 1851
c. 1852 - 1865
d. 1866 - 1905

Yerba Buena - 1835-1846

San Francisco, originally named Yerba Buena by the Spanish, was settled in 1835 near the present site of Portsmouth Square. At this time the shoreline near Portsmouth Square extended inland as far as Montgomery Street. Much of today's downtown San Francisco lay under a body of water called Yerba Buena Cove. The site of One Sansome and 58 Sutter was on dry land, some 450-500 feet inside the shoreline. Native American Indians had roamed the area known as Yerba Buena shortly before the arrival of settlers, but scant record remains of their existence. The writer John S. Hittle,in the Annals of San Francisco records the survival, until 1842, of an Indian sweat house, or temascal, located at the southwest corner of Sacramento and Montgomery, about 1200 feet from the project site.

The presence of the white man on the San Francisco peninsula had been felt since the 18th century when the Mission of San Francisco de Assisi, or Mission Dolores, and the garrison at the Presido were founded (1776). No evidence suggests that Yerba Buena Cove, the site of present-day downtown, might have been a port of anchorage during the Spanish era. Roads suggesting transport between the cove and Spanish settlements at the Presidio and Mission were non-existent, at least until 1835. "No wagon or cart had ever visited Yerba Buena Cove, and the only roads from it were narrow horse trails." (Hittle, 1878)

The first non-Spanish settlers on the San Francisco peninsula were merchants intent upon establishing a port of trade. The Englishman William Richardson and the American Jacob Reese settled near Portsmouth Square in 1835 and 1836,

respectively. By this time both the Mission and Presidio had lost population and California was under Mexican rule.

Rapid transformation of the village of Yerba Buena was to occur over the next 10 to 15 years. The first survey of the village, which had spread out from Portsmouth Square in an irregular fashion, was conducted in 1839 by Jean Vioget. The survey established the "50 vara lot" included the area bounded by Montgomery, California, Powell and Broadway streets. The sites of One Sansome and 58 Sutter were not included, being southeast of these boundaries.

Transformation of the Village - 1847-1851

Shortly after the American flag was raised over California (1846), the name Yerba Buena was changed to San Francisco. The Gold Rush, which began in 1849, attracted hordes of people to California. San Francisco became the port of debarkation for thousands of treasure seekers. Population increased rapidly and there was competition for land near the shoreline. The decision to fill the cove and publicly sell this land as lots called for a second survey. In 1847 Jasper O'Farrell surveyed some 800 acres and defined about 444 lots within the cove itself. Street were laid out and named much as they exist today. The undeveloped sites of One Sansome and 58 Sutter were included in this survey, which extended the city's boundaries to the South of Market Street area. A copy of O'Farrell's survey shows the extent of the city by 1847. (See Figure B-1)

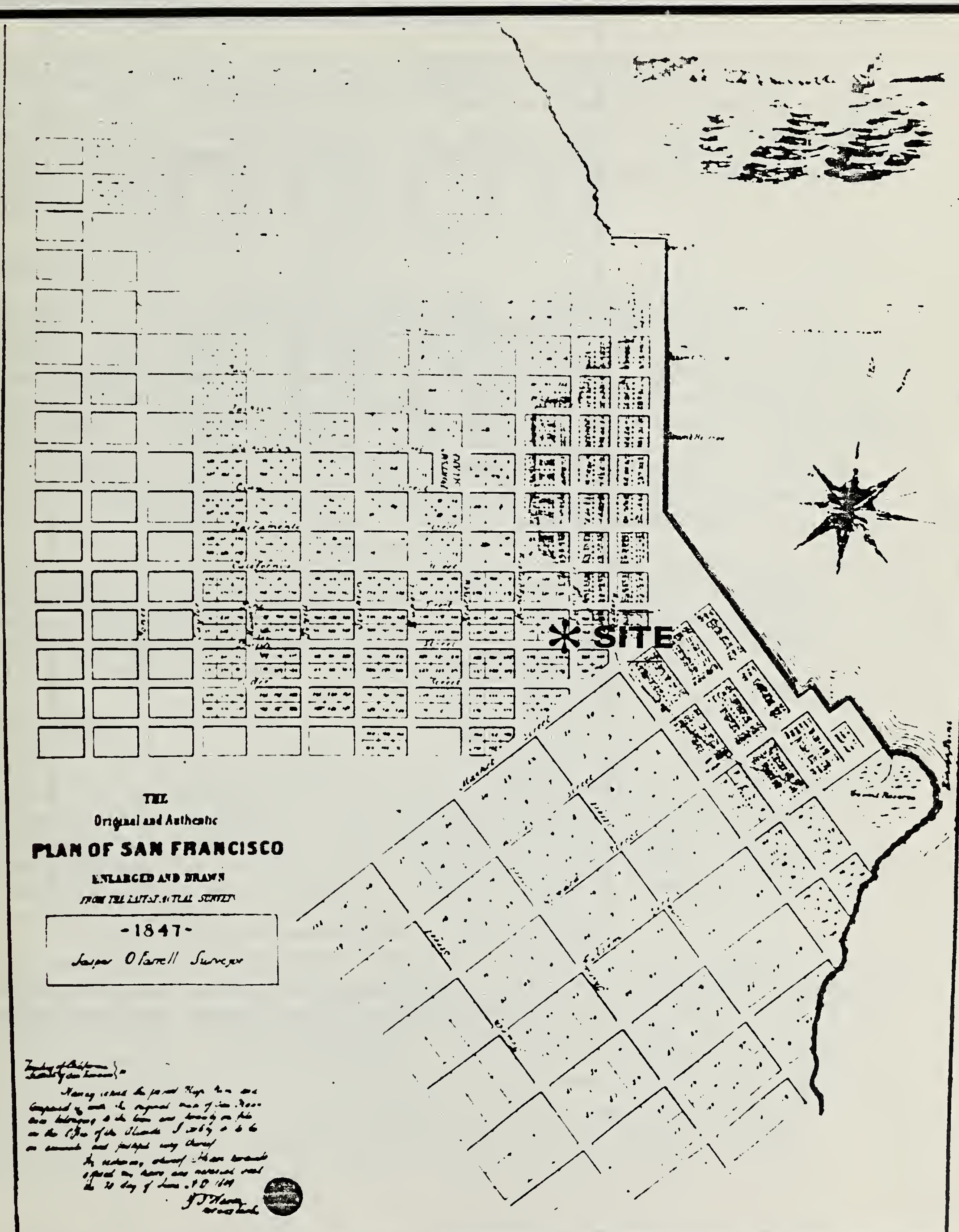
Following the survey, waterfront wharves and piers began to be erected. Grading, filling and street planking were quick to follow. Bancroft's map of the city, dated 1848, depicts 2 streets which had already been filled in. These streets were Sansome and Battery, north of Bush and of the sites being considered here. (Figure B-2)

The housing and other buildings erected during these years represented a variety of types. Makeshift shanties, prefabricated iron structures, and old ships used as storehouses served the needs of the influx of immigrants who were drawn to San Francisco in search of gold. Abandoned ships, dragged into shallow water before filling began, were often enclosed within a new landfill. Although a number of such ships were destroyed in fires between 1849 and 1851, some did survive, as attested to by their presence on 1887 Sanborn Insurance Company maps. It is unlikely that the sites of One Sansome and 58 Sutter were ever occupied by a ship, since they are located some 450 to 500 feet inland of the original shoreline (See Figure B-1). Temporary structures were probably located on the sites from sometime after 1849 until the first documented permanent structures were built. The small squares

figure B1

PLAN OF SAN FRANCISCO, 1847
JASPER O'FARRELL, SURVEYOR

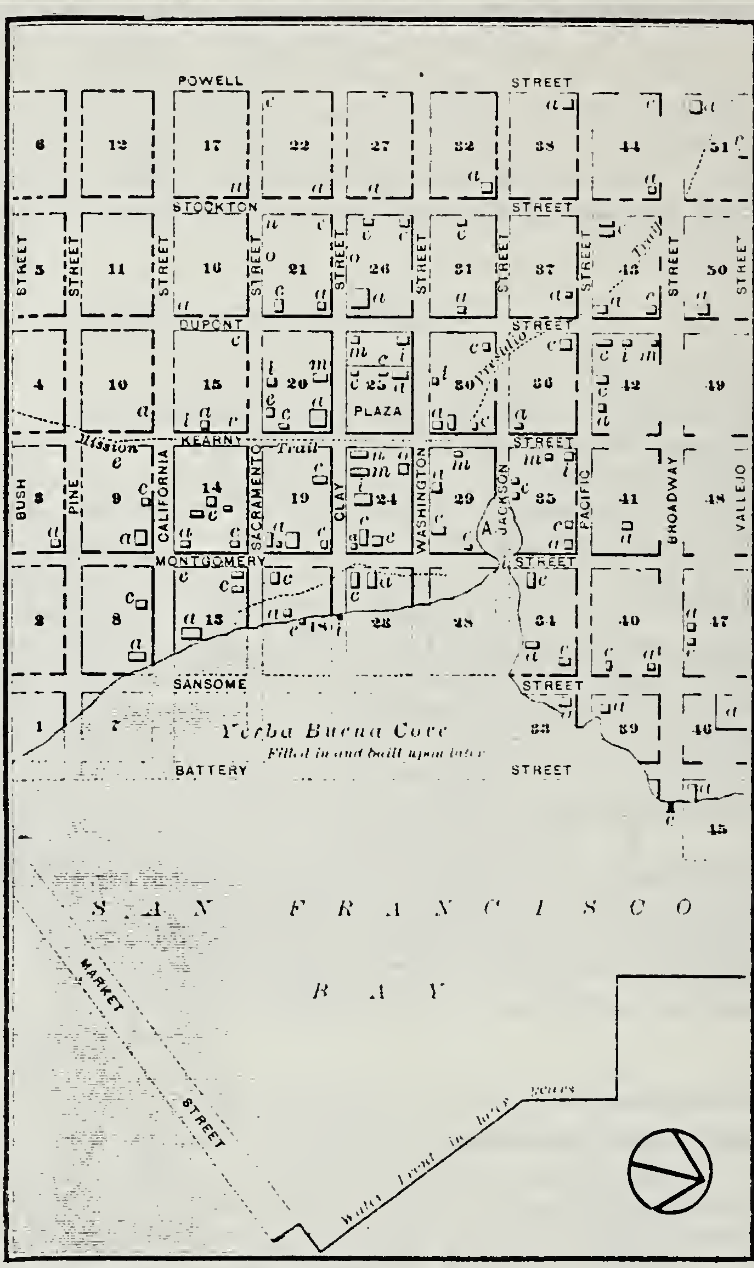
Source: History Room, San Francisco Library.



Note: Quality of reproduction due to age of photo.

figure B2 SAN FRANCISCO, 1848

Source: Bancroft Library.



San Francisco in 1848.

Note: Quality of reproduction due to age of photo. Site not included in mapped area, because it is yet undeveloped.

shown on Coast Survey maps in 1853 and 1859 at the sites of One Sansome and 58 Sutter suggest such structures (Figures B-3 and B-4).

The center of the commercial district developed north of California Street and spread eastward into the cove before moving south. Montgomery Street was already the center of the banking or financial district by 1850. During 1849-1851, the city was destroyed by fire 6 times, and each time it was rebuilt. Wood structures were replaced by masonry, but even these were not immune to fire.

<u>1852-1865</u>

Throughout the 1850's the city grew. More wharves were completed to border the city's waterfront. Erection of the seawall was begun. The Cove was filled in and built up out to East Street (later renamed The Embarcadero). Development of the city reached Market Street, which had remained unbuilt to this time. A comparison of the 1853 and 1859 Coast Survey Maps (Figures B-3 and B-4) show these developments. After the sixth fire in 1851, there was an improvement in building. "Solid brick walls two and three feet in thickness, double shutters and doors of malleable iron" (Soule, 1954) were erected.

The area surrounding the sites of One Sansome and 58 Sutter was developed during this period. The street face of Sansome between Broadway and Market was virtually a solid wall of buildings by 1859 except for the undeveloped lots of One Sansome and 58 Sutter. (See Figures B3 and B4)

<u>1866-1906</u>

During the later part of the 1860's, the Bank of California moved its existing headquarters 2 blocks south to the corner of Sansome and California. This event precipitated the general movement southward of other commercial activities and districts. The hotel, women's apparel, wholesale garment, and financial districts were displaced south of their original locations (Bowden, 1967).

The area around the sites of One Sansome and 58 Sutter attracted wholesale dry goods establishments and precipitated a garment district movement southward during the late 1860's and early 1870's. As accomodations for such businesses, 3- and 4-story masonry warehouses and lofts were erected south of Pine Street and east of Montgomery on "newly developed land" (Bowden, 1969). The advantages of locating here were several. The obvious one was proximity to Market Street transport lines and the docks, which supplied the goods

figure B3 U.S. COAST SURVEY MAP, 1853

Source: Bancroft Library.

figure B4 **U.S. COAST MAP, 1859**

Source: Bancroft Library.

necessary to the wholesale garment business. Secondly, the retail apparel center was located only a few blocks to the east (on Kearny) and one block from the hotels located on lower Montgomery and New Montgomery.

The site of One Sansome and 58 Sutter were developed during this period with typical wholesale and manufacturing lofts. The 1869 Coast Survey Map indicates that the sites had been only partially developed. (The corner portion of One Sansome and all of 58 Sutter had been built up.) This information is somewhat confusing when examining 1874 and 1883 photographs of the early buildings (Figures B-5 and B-6). The building on the site of One Sansome appears to be one structure which extends from the corner to the mid-block of Sansome. It appears that the building was built in 2 stages; the 1887 Sanborn Insurance map indicates the use of different materials in the corner portion of the building (the portion shown as developed on the 1869 Coast Survey Map). One further point suggests that this building was built in 2 stages: the Sansome Street facade is divided by piers into 4 sections which correspond to interior wall partitions. Three sections were of equal proportions of 4 bays each; the corner portion of the building was 6 bays long. The Sutter Street facade was composed of 2 sets of 3 blind bays at either end and one bay in the center of the mid-section of the wall. This blank wall space and blind windows suggest warehouse use. Only a fragment of the early building at 58 Sutter has been identified by old photographs. This building appears to be 4 stories in height, capped by a Gothic parapet, and pierced by narrow bays. The facades of both buildings appear to have been masonry; the construction of the structures is not otherwise known.

The commercial function of One Sansome changed several times during the late 1800's. The 1874 photograph contains a sign indicating that perfumes were sold here. The 1884 photograph and 1887 Sanborn Insurance map indicate that a printing establishment and dry goods had been moved into the building. In 1888, the London Paris and American Bank, Ltd., moved from 2 blocks north on Sansome to the corner portion of One Sansome. The building was remodeled to accomodate the new occupants. According to an 1890 photograph the remodeling included additional windows in the wall on Sutter (Figure B-7). The style of building was typical of this period. Although only a fraction of it is evident from the photographs, the building at 58 Sutter appears to be of the same general form. These structures remained until the 1906 earthquake and fire, when both were destroyed. No evidence was uncovered linking them with the structures which exist on the site today.

figure B5 SANSOME STREET, 1874

Source: History Room, San Francisco Library. View from Market Street.

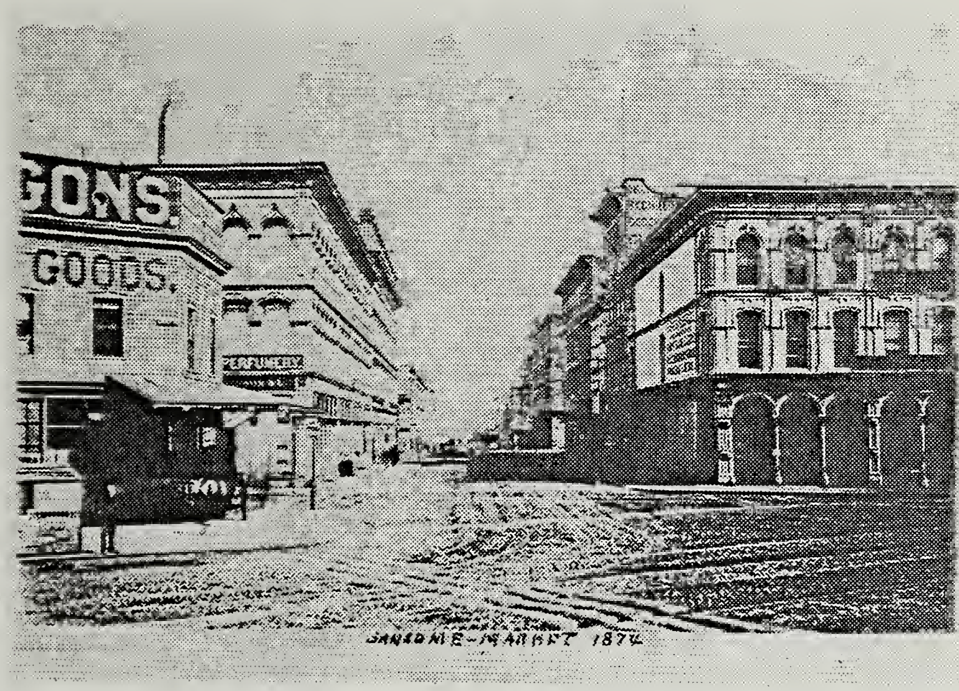
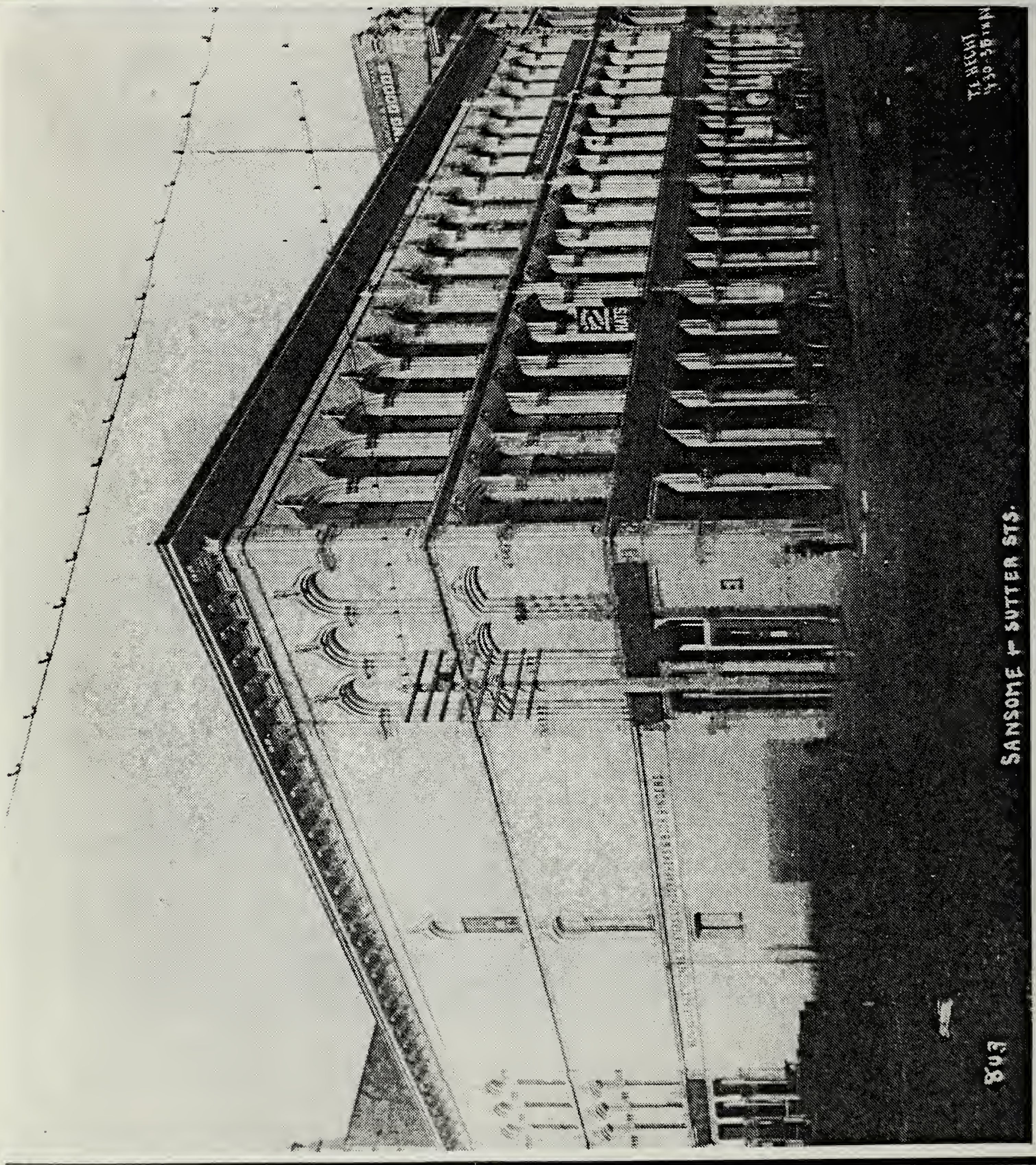


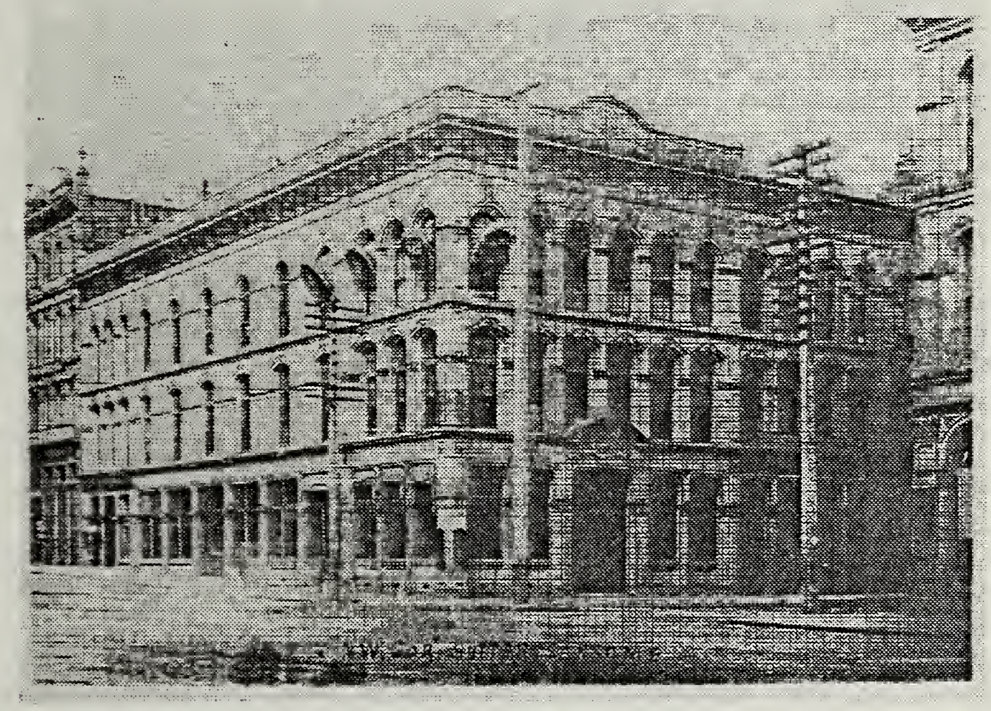
figure B6 SANSOME & SUTTER STREET, 1883

Source: History Room, San Francisco Library.



LONDON, PARIS & AMERICAN BANK, LTD, 1890

figure B7
Source: History Room, San Francisco Library.



Statement of Significance[1]

Based upon the survey of primary and secondary sources summarized in this report, no evidence appears to exist which links the sites of One Sansome and 58 Sutter to any significant archaeological sites or historic events. The existence or survival of any important or extensive subsurface remains is improbable. Two permanent buildings have been recorded as extant from 1869 to 1906, respectively located on the sites of One Sansome and 58 Sutter. According to available maps and photographic documentation, they were both constructed in a form commonly found in the immediate area and typical of San Francisco's 19th century business/loft building styles. None of the records examined in this survey indicates that any particular architectural, historic or cultural significance is represented by this early development of the sites.

Due to the fact that after the earthquake a number of buildings were rebuilt using parts of earlier foundation walls, there is a possibility that the present One Sansome building incorporates a part of the earlier structure's foundation, since it is of approximately the same dimensions.

The possibility of a ship hulk being found beneath the surface of 58 Sutter or One Sansome is improbable. According to available sources such as the 1887 Sanborn Insurance maps of San Francisco, ships used as storehouses were located on filled land which had once been part of the Yerba Buena cove. As the cove was filled, the ships were enclosed and used as storehouses. As the sites of One Sansome and 58 Sutter were located inland 450 to 500 feet from the original shoreline, it is improbable that any part of an old ship exists beneath these sites.

According to San Francisco Coast Survey maps, the lots of One Sansome and 58 Sutter were two of the last in the vicinity of Sansome and Sutter to be occupied by permanent buildings. Small structures appear on the sites in both the 1853 and 1859 Coast Survey maps, which cannot be further documented. These structures were probably shanties or temporary outbuildings. (Shanties and canvas tents covered the city during this period and served as housing for the influx of immigrants attracted to San Francisco during the Gold Rush.) The degree to which the

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[1]Prepared by Charles Hall Page and Associates Inc., an architecture and urban planning firm specializing in planning and design services for the conservation and preservation of buildings and other cultural resources. Detailed qualifications of the firm are on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319.

site has been redeveloped makes it unlikely that the evidence of such temporary structures has survived.

Although no exact date can be affixed to the development of permanent buildings on the sites of One Sansome and 58 Sutter, the first documentation of the structures (by maps and photographs) occurs between the dates of 1869 and 1874. This documentation corresponds to the period of development of the wholesale garment district east of Montgomery and south of California, which began during the 1860's.

The building at One Sansome underwent a number of changes in use between its first development and the city's destruction by fire and earthquake in 1906. In the 1880's a printing establishment was located here, as well as a number of dry goods outlets. In 1888 the building was remodeled to accommodate the needs of the London Paris and American Bank, Ltd. The bank retained these quarters until the 1906 earthquake and fire destroyed them. The existing building at this location, of similar porportions to the original, was rebuilt for the same bank several years later. Less is known about the occupants and appearance of the 4-story, pre-earthquake building at 58 Sutter. It was devoted to dry goods at one time and appeared to be similar in style to the Commercial Italiante form common to the area.

Conclusion

No evidence has been located which connects these sites or their original permanent buildings with any important events or periods in San Francisco's history. Therefore, it is considered improbable that these properties, One Sansome Street and 58 Sutter Street, might contain any significant prehistoric or historic archeological resources.

APPENDIX C: 1976 DEPARTMENT OF CITY PLANNING INVENTORY OF ARCHITECTURALLY SIGNIFICANT BUILDINGS

In 1974, 1975 and 1976, the San Francisco Department of City Planning conducted a parcel by parcel, citywide inventory of architecturally significant buildings. An advisory review committee of architects and architectural historians, including John Beach, Architectural Historian; Michael Corbett, Architectural Historian; John Frisbee, Regional Director, National Trust for Historic Preservation; Mrs. G. Bland Platt, President, San Francisco Landmarks Preservation Advisory Board; James Ream, Architect; Judy Waldhorn, Architectural Historian; Francis Whisler, Architect; Sally Woodbridge, Architectural Historian; William Coburn, Architect; Robert Hersey, Architect; and Al Lanier, Architect; assisted in the final determination of evaluative ratings for the 10,000 buildings which have been entered in an unpublished 60-volume record of the inventory. The buildings have been recorded on color-coded maps which identify locations and relative significance; these are available for public inspection at the Department of City Planning.

The inventory was not an inventory of historic structures. Rather, it was an inventory of buildings that were considered to be architecturally significant from the standpoint of overall design, or particular design features. Contemporary buildings were included as well as some more than 50 years old. Each building was numerically rated as to its overall architectural significance. The ratings ranged from a low of "0" to a high of "5". The buildings were also separately classified by style. Finally, each structure received a summary rating based on the first 2 codes as well as on its environmental and urban design setting, which also ranged from "0" to "5". The buildings were also separately classified by style. Thus, each building included in the inventory was coded by its architectural significance, its style, and its overall environmental significance. Buildings receiving a summary rating of "3" or higher are considered to be structures of merit.

Inclusion of a building in the inventory does not necessarily require or encourage its preservation. Rather, the urban design purpose is to guide the design of new construction which would affect the setting or visual environment of such buildings so as to minimize harmful or incompatible effects

APPENDIX D: DOWNTOWN ARCHITECTURAL INVENTORY BY THE FOUNDATION FOR SAN FRANCISCO'S ARCHITECTURAL HERITAGE, SPLENDID SURVIVORS

The Foundation for San Francisco's Architectural Heritage and its consultants Charles Hall Page & Associates, completed and published a comprehensive architectural and historical survey of downtown buildings in 1979 (Splendid Survivors, San Francisco's Downtown Architectural Heritage, California Living Books, 1979). The survey included an evaluation of 790 parcels according to 4 broad categories of criteria: (1) architectural significance; (2) historical significance; (3) environmental significance; and (4) design integrity. On the basis of scores for each criteria, final ratings were assigned to each building built before 1945 on an A to D scale:

A. Highest Importance -- individually the most important buildings in downtown San Francisco, distinguished by outstanding qualities of architecture, historical values, and relationship to the environment. All A-Group buildings are of highest priority for City Landmark status.

B. Major Importance -- buildings which are of individual importance by virtue of architectural, historical and environmental criteria. These buildings tend to stand out for their overall quality rather than for any particular outstanding characteristics. B-Group buildings are eligible for the National Register, and are of secondary priority for City Landmark status.

C. Contextual Importance -- buildings which are distinguished by their scale, materials, compositional treatment, cornice, and other features. They provide the setting for more important buildings and they add visual richness and character to the downtown area. Many C-Group buildings may be eligible for the National Register as part of historic districts.

D. Minor or No Importance -- buildings which are insignificant examples of architecture by virtue of original design, or more frequently, insensitive remodeling. This category includes vacant buildings and parking lots. Most D-Group buildings are "sites of opportunity".

The Inventory notes the following about the One Sansome and Holbrook Buildings:

One Sansome Street

"One of the city's finest banking temples, designed in two stages by two of the city's most important architects. It was built for the London Paris National Bank which became the Anglo California National Bank and later merged with Crocker Bank. In composition, the building is a modified temple without a pediment. Ornamentation is derived from classical antiquity with a Doric order superimposed over an arcade on the original Sutter Street facade. As extended, the Sansome Street facade consists of a colonnade at the street line with arched pavilions flanking a recessed entrance porch. Ornamental detail is carved in granite on a steel skeleton. The major interior banking hall is finished in artificial marble and bronze with a coffered ceiling and a large central oval skylight. A smaller space that continues the banking hall to the north, in a complementary manner, is actually carved out of Kelham's Standard Oil Building of 1924 at 225 Bush Street.

The building is an important element in one of the downtown area's finest rows on Sansome Street in the blocks stretching from Market past California. It is also part of the diminished but still fine group on lower Sutter whose major members are the Flatiron and Chancery buildings on Market, 560 Market, and the Holbrook Building on Sutter...." (pg. 109)

58-64 Sutter Street

"A steel frame, terra cotta clad office building with beautiful if somewhat underscaled detail, designed by one of the best post-fire commercial firms. It was built for Charles H. Holbrook (1830-1925), a Gold Rush pioneer whose firm of Holbrook, Merrill & Stetson became one of the city's major suppliers of specialized non-structural metal building material in the period after the fire. In his later years Holbrook attracted some attention as a long-time survivor of the Gold Rush era. The building is a crucial element in this deteriorated block of Sutter which is almost overwhelmed by modern highrises at 44 and 120 Montgomery. The building helps define the still impressive streetscape along with One Sansome next door and several buildings across the street. It is in a three part vertical composition with Renaissance/Baroque ornamentation that is richest at the upper columned and arcaded level and cornice. Steel frame construction." (pg. 219)

APPENDIX E: ALLOWABLE BONUS FLOOR AREA CALCULATIONS

Building Feature	Unit of Feature Upon Which Bonus is Based	Square Feet of Bonus Floor Area Per Unit of Feature in C-3-0 District	Total Sq. Ft. of Bonus Area
Rapid Transit Access	Provision of Direct Access to Station Mezzanine	20% of Basic Allowable Gross Floor Area	94,880
Multiple Building Entrances	Each Major Entrance After First	10,000	23,720
Sidewalk Widening	Each Creditable Square Foot of Widening	7	45,500
Shortening Walking Distance	Each Linear Foot by Which Walking Distance Between Streets or Alleys is Reduced	40	3,000
Plaza	Each Creditable Square Foot of Plaza Area	10	28,500
Side Setback	Each Creditable Square Foot of Side Setback Area	6	58,200
TOTAL BONUSES, FLOOR AREA			253,800
BASIC FLOOR AREA (14:1 F.A.R)			474,400
TOTAL FLOOR AREA ALLOWABLE (21.5:1 F.A.R.)			728,200
SITE AREA = 33,885.95 Sq.Ft.			
PROPOSED BUILDING			728,200

Source: J. Wolever, William L. Pereira Associates, personal communication with R. Passmore, Zoning Administrator, Department of City Planning, 14 November, 1980.

Correspondence regarding the Department of City Planning's review of bonus floor area calculations is on file and available for public review at the Department of City Planning, Office of Environmental Review, 45 Hyde Street, Room 319

figure E1 PROPOSED ONE SANSOME PROJECT

Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

BONUS CALCULATIONS

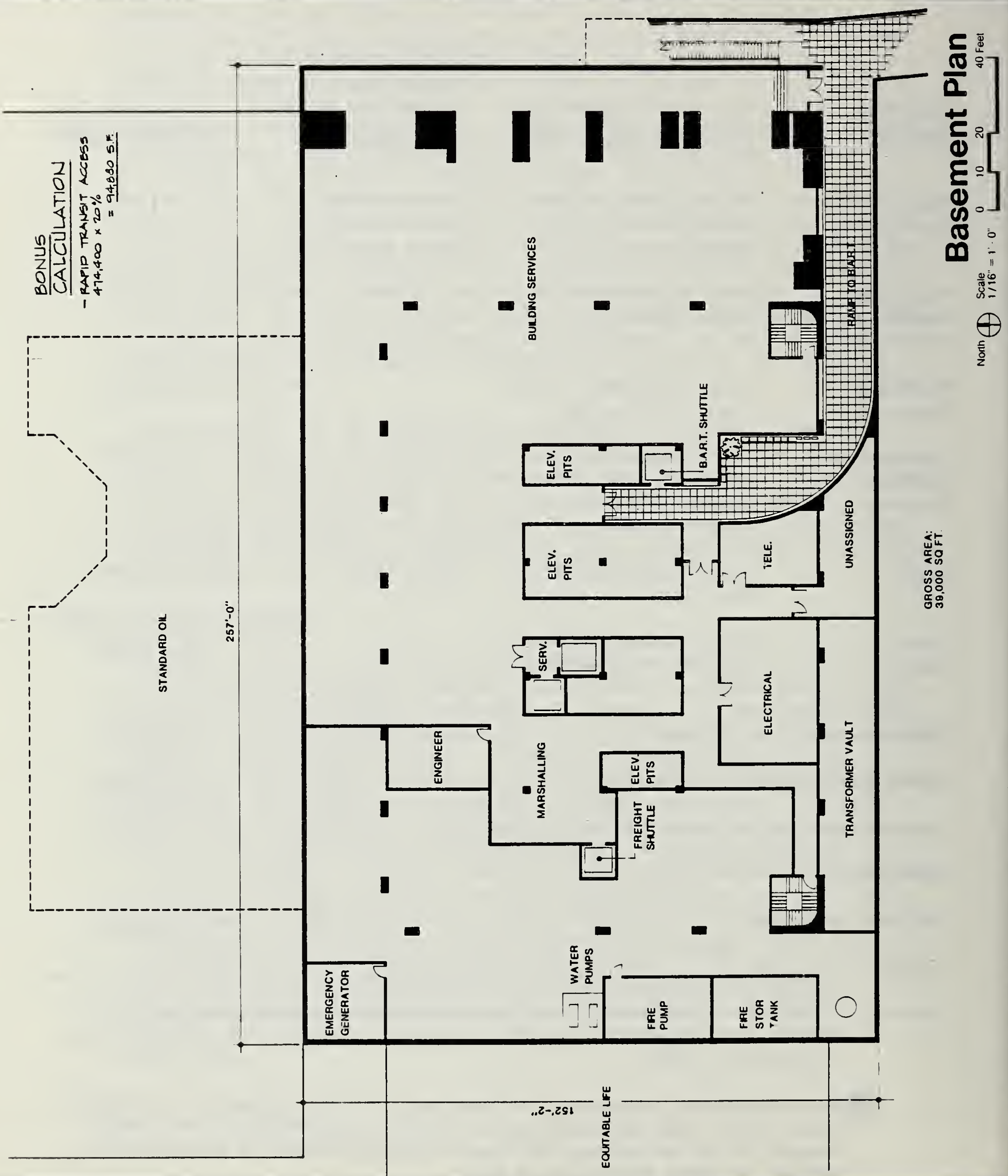
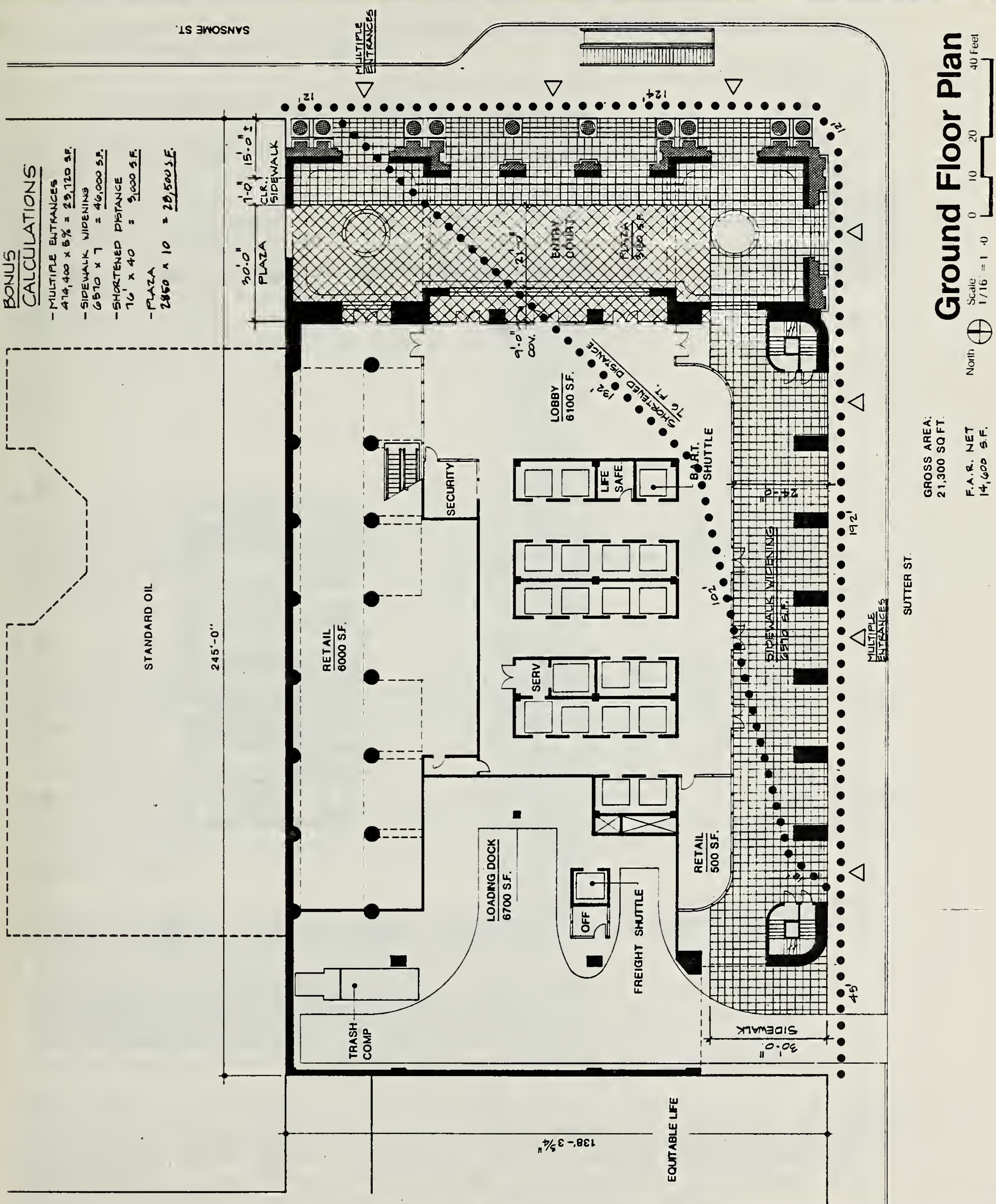


figure E2 PROPOSED ONE SANSOME PROJECT

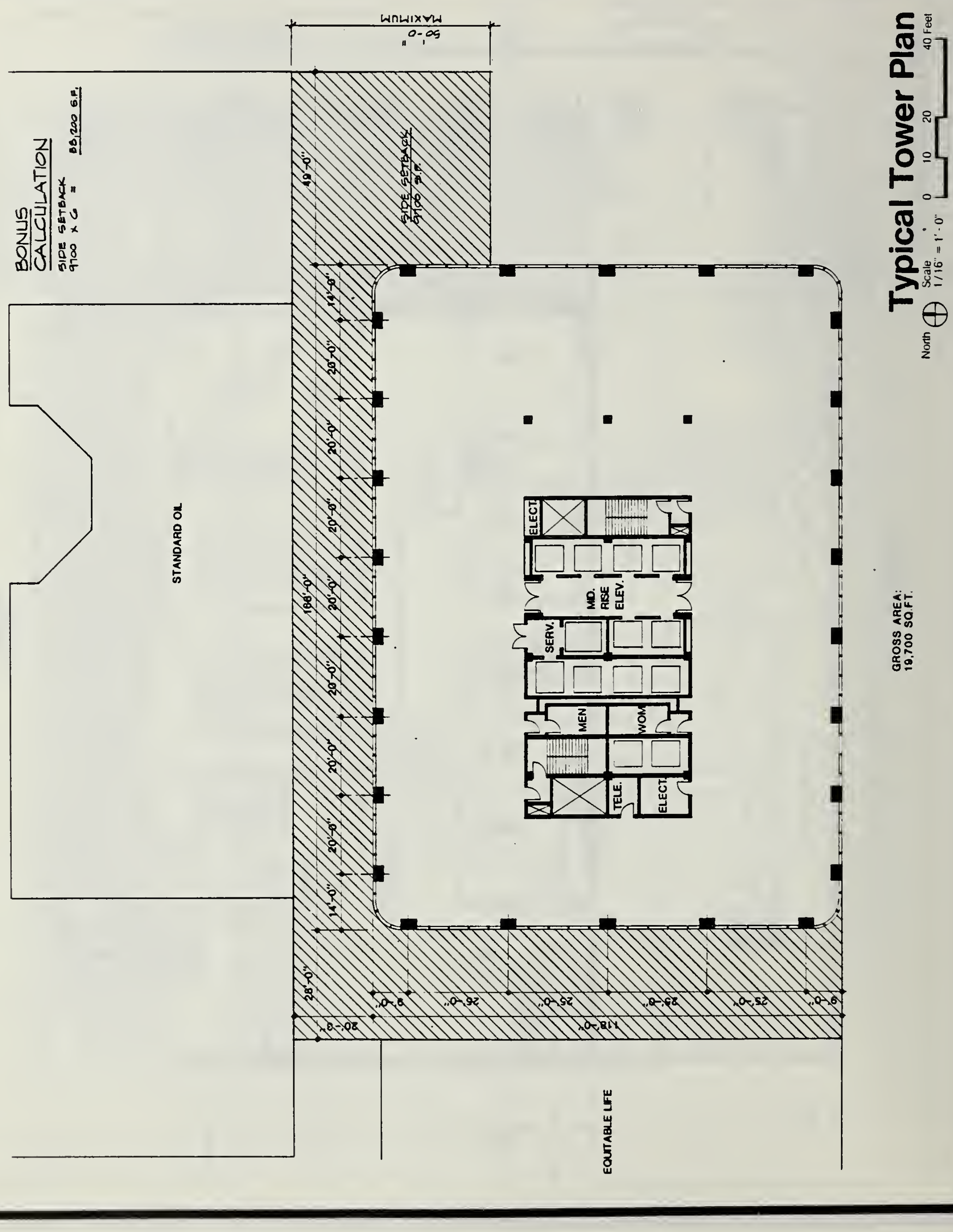
Source: WILLIAM L PEREIRA ASSOCIATES
PLANNERS · ARCHITECTS · ENGINEERS

BONUS CACULATIONS



Source: WILLIAM L PEREIRA ASSOCIATES PLANNERS · ARCHITECTS · ENGINEERS

BONUS CALCULATIONS



APPENDIX F: TRANSPORTATION METHODOLOGY AND CALCULATIONS[1]

A. ESTIMATED TRIP GENERATION FOR THE PROPOSED PROJECT AND EXPECTED TRAVEL MODES

1. Trip Generation Factors

The trip generation rate for office space in the proposed project is 17.5 daily person trips per 1000 square feet of occupiable office space, from the Guidelines for Environmental Evaluation: Transportation Impacts.[2] The trip generation rate for retail space is 30 daily person trips per 1000 square feet of rentable retail area.[3] Trip generation by building service and maintenance employees is calculated at 2.0 trips per employee,[4] which is equivalent to 16 daily person trips per 100,000 square feet of gross building area.[5]

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[1]Calculations in this Appendix may somewhat overstate the actual impact of the proposed project due to reductions in building size subsequent to the analysis. The actual difference would be less than 1%.

[2]San Francisco Department of City Planning, Guidelines for Environmental Evaluation: Transportation Impacts, June 1980, hereafter referred to as Guidelines. These guidelines use the term "leasable" office space. In this report, "leasable" and "occupiable" office space are used interchangably for purposes of transportation and building population analysis. It is becoming common to lease restrooms and portions of lobbies to office tenants. Therefore office space actually occupied for use is sometimes less than leased space.

[3]San Francisco City Planning Commission, Final Environmental Impact Report, 101 California Street, 18 May 1979, p.88.

[4]This factor is the same factor implied for work trips with respect to other employment contained in the Guidelines referenced in Note 2. Non-work trips by these employees is not estimated due to their unusual hours of employment.

[5]San Francisco Planning and Urban Renewal Association, Detailed Findings: Impact of Intensive, High-Rise Development in San Francisco, June 1975, p. 90-91. This report indicates an average of 8 building service and maintenance employees for every 100,000 gross square feet of building area.

Based on the estimates of 603,800 occupiable square feet of office space, 22,000 rentable square feet of retail space and total building area of 813,200 square feet, the number of person trips generated by the proposed project would be 11,357 on an average weekday (Table F-1).

2. Trips by Purpose

With an assumed building occupancy of 3121 employees and two home-work trips per day per employee, it is estimated that 6242 daily trips would be employee-generated commute trips. The remaining trips (5115 daily trips) would be non-commute trips, e.g., lunch trips, shopping, deliveries, business visits, etc. Thus, 55% of total daily trips would be work trips and 45% would be non-work trips.[1]

3. Travel by Mode and Destination

The Guidelines for Environmental Evaluation: Transportation Impacts set forth the following p.m. peak hour transportation assumptions:

- P.M. peak hour person trips account for 20% of total daily person trips;
- Geographical distribution of p.m. peak hour person trips are 49% to San Francisco, 16% to the Peninsula, 24% to the East Bay, and 11% to the North Bay.

Further information regarding p.m. peak hour modal split by destination was received from the San Francisco Department of City Planning:[2]

- P.M. peak hour auto person trips by geographical destination are 26% of all trips in San Francisco, 36% of all trips to the East Bay, 49% of all trips to the Peninsula and 53% of all trips to the North Bay.

The stated p.m. peak hour modal split and geographical distribution of trips are assumed to apply to p.m. peak hour work trips and non-work trips generated by both office and retail space.

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[1]The Guidelines give a work/non-work trip split of 57% work trips and 43% non-work trips, but this is for office space only.

[2]C.H. Shao, Planner, San Francisco Department of City Planning, telephone communication, 25 September 1980.

TABLE F-1

ONE SANSOME BUILDING: DAILY PERSON-TRIPS

	(a) Area (Sq. Ft.)	(b) Person-Trip Factor	(c) Total Daily Person Trips[4]
Office	603,800 Net Occupiable	17.5 per 1,000 sq.ft.[1]	10,567
Retail	22,000 Net Leasable	30 per 1,000 sq.ft.[2]	660
Service/ Maintenance	813,200 Gross	16 per 100,000 sq.ft.[3]	130
TOTAL			11,357

[1]San Francisco Department of City Planning, Guidelines, June 1980, Attachment 1.

[2]San Francisco Planning Commission, Final Environmental Impact Report, 101 California Street, 18 May 1979, p. 88.

[3]The Service/Maintenance trip factors were calculated by combining the employment factor of 8 employees per 100,000 gross square feet with a factor of 2.0 trips per employee.

[4]Column (a) x Column (b)

For purposes of determining p.m. peak hour work trips, 65% of office and retail employees are assumed to begin their work-home trips during the peak hour. In addition, 10% of non-work trips generated by retail space have been allocated to the p.m. peak hour.[1] No p.m. peak hour trips have been assigned to building service and maintenance employees since these employees generally have different work shifts.

Daily modal split factors for work and non-work trips were taken from the Final Environmental Impact Report for 315 Howard Street[2]. The daily modal split factors for work trips used in that report were compiled from seven previous surveys of proposed buildings both north and south of Market Street.[3] Table F-2 provides a summary of modal splits by trip purpose and time of travel.

In order to provide a consistent set of calculations for transportation and air quality analysis, p.m. peak hour modal split factors and daily modal split factors were combined so that daily and p.m. peak hour travel by purpose and mode could be described in terms of trips per 1000 square feet of space. Tables F-3 and F-4 describe relevant factors for office and retail space, respectively.

4. Person trips Generated by Type of Use

Tables F-5, F-6 and F-7 display estimated person trips generated by the proposed One Sansome project for office and retail space and by building service and maintenance employees. Work and non-work trips, p.m. peak hour trips and total daily trips, and modal split allocations for each category are shown.

Text continues on page 218.

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[1]San Francisco City Planning Commission, Final Environmental Impact Report, 315 Howard Street, EE 79.196, 12 August 1980 Table 7, p. 70.

[2]Ibid, pp. 175-180.

[3]The following surveys/studies were used to generate the work trip modal split factors for the Final Environmental Impact Report, 315 Howard Street (EE 79.196): ITEL Survey (EE 78.27); 1 Market Plaza; Levi Plaza (EE 77.256); Yerba Buena Center EIR (EE 77.220); Crocker Bank (EE 78.298); Federal Reserve (EE 78.207); San Francisco Planning and Urban Renewal Association, Detailed Findings: Impact of Intensive High-Rise Development in San Francisco, June 1975.

TABLE F-2
SUMMARY OF MODAL SPLITS BY TRIP PURPOSE AND TIME OF TRAVEL

	PERCENT OF DAILY WORK TRIPS BY MODE*	PERCENT OF DAILY NON-WORK TRIPS BY MODE*	PERCENT OF P.M. PEAK HOUR TRIPS BY MODE**
AUTO:			
S.F. CBD		13	
S.F. Remainder	11	20	13
S.F. TOTAL	11	33	13***
East Bay	8	6	9***
Peninsula	7	5	8***
North Bay	5	1	6***
AUTO TOTAL	31%	45%	36%
TRANSIT			
MUNI			28.8
BART			15.1
AC Transit			8.4
SAMTRANS			1.5
SPRR			4.4
GGT Buses			4.6
GGT Ferry			1.4
TRANSIT TOTAL	72%	34.5%	64.6%
OTHER: (Incl. Pedestrians)	3%	22%	2.4%
TOTAL, with MUNI Transfers	106%	101.5%	103.0%
Percent by Trip Purpose	60.6%	43.4%	
TOTAL, without MUNI Transfers	100%	100%	20.0%
Percent by Trip Purpose	57%	43%	

*San Francisco City Planning Commission, Final Environmental Impact Report 315 Howard Street, op. cit, p.175-181.

**San Francisco Department of City Planning, Guidelines, June 1980, Attachment 1.

***C.H. Shao, Planner, San Francisco Department of City Planning, telephone conversation, 25 September 1980.

TABLE F-3

PERSON TRIPS GENERATED PER 1,000 SQUARE FEET OF OCCUPIABLE OFFICE SPACE
BY TRIP PURPOSE, TIME OF TRAVEL AND MODE

MODE	PM PEAK HOUR WORK TRIPS PER 1,000 SQUARE FEET	TOTAL DAILY WORK TRIPS PER 1,000 SQUARE FEET	PERCENT OF DAILY WORK TRIPS BY MODE	P.M. PEAK HOUR NON-WORK TRIPS PER 1,000 SQUARE FEET	TOTAL DAILY NON-WORK TRIPS PER 1,000 SQUARE FEET	PERCENT OF DAILY NON-WORK TRIPS BY MODE	P.M. PEAK PEAK HOUR PERSON TRIPS PER 1,000 SQUARE FEET	PERCENT OF P.M. PEAK HOUR TRIPS BY MODE	TOTAL DAILY PERSON TRIPS PER 1,000 SQUARE FEET	PERCENT OF TOTAL DAILY PERSON TRIPS BY MODE
AUTO:										
S.F. CBD					1.0	13			1.0	5.7
S.F. Remainder	0.42	1.1	11	0.033	1.5	20	0.453	13	2.6	14.9
S.F. TOTAL	0.42	1.1	11	0.033	2.5	33	0.453	13	3.6	20.6
East Bay	0.29	0.8	8	0.022	0.4	6	0.312	9	1.2	6.8
Peninsula	0.26	0.7	7	0.020	0.4	5	0.280	8	1.1	6.3
North Bay	0.20	0.5	5	0.015	0.1	1	0.215	6	0.6	3.4
AUTO TOTAL	1.17	3.1	31%	0.090	3.4	45%	1.260	36%	6.5	37.1%
TRANSIT										
MUNI	0.94			0.072			1.012	28.8		
BART	0.49			0.038			0.528	15.1		
AC Transit	0.27			0.021			0.291	8.4		
SAMTRANS	0.05			0.004			0.054	1.5		
SPRR	0.14			0.011			0.151	4.4		
GGT Buses	0.15			0.012			0.162	4.6		
GGT Ferry	0.05			0.004			0.054	1.4		
TRANSIT TOTAL	2.10	7.2	72%	0.162	2.6	34.5%	2.262	64.6%	9.8	56.0%
OTHER: (Incl. Pedestrians)	0.08	0.3	3%	0.006	1.6	22%	0.086	2.4%	1.9	10.9%
TOTAL, with MUNI Transfers	3.35	10.6	106%	0.258	7.6	101.5%	3.608	103.0%	18.2	104%
Percent by Trip Purpose	(95.7%)	60.6%		(7.4%)	43.4%		(103.1%)	20.6%	104%	
TOTAL, without MUNI Transfers	3.25	10.0	100%	0.25	7.5	100%	3.50	20.0%	17.5	100%
Percent by Trip Purpose	(93%)	57%		(7%)	43%		(100%)		100%	

TABLE F-4

PERSON TRIPS GENERATED PER 1,000 SQUARE FEET OF RENTABLE RETAIL SPACE BY TRIP PURPOSE, TIME OF TRAVEL AND MODE

MODE	PM PEAK HOUR WORK TRIPS PER 1,000 SQUARE FEET	TOTAL DAILY WORK TRIPS PER 1,000 SQUARE FEET	PERCENT OF DAILY WORK TRIPS BY MODE	P.M. PEAK HOUR NON-WORK TRIPS PER 1,000 SQUARE FEET	TOTAL DAILY NON-WORK TRIPS PER 1,000 SQUARE FEET	PERCENT OF DAILY NON-WORK TRIPS BY MODE	P.M. PEAK PEAK HOUR PERSON TRIPS PER 1,000 SQUARE FEET	PERCENT OF P.M. PEAK HOUR TRIPS BY MODE	TOTAL DAILY PERSON TRIPS PER 1,000 SQUARE FEET	PERCENT OF TOTAL DAILY PERSON TRIPS BY MODE
AUTO:										
S.F. CBD					3.5	13			3.5	11.7
S.F. Remainder		.37			5.3	20			5.7	19.0
S.F. TOTAL	.14	.37	11	.35	8.8	33	.49	13	9.2	30.7
East Bay	.10	.27	8	.24	1.6	6	.34	9	1.9	6.3
Peninsula	.09	.23	7	.21	1.3	5	.30	8	1.5	5.0
North Bay	.06	.16	5	.16	.3	1	.22	6	0.4	1.3
AUTO TOTAL	.39	1.03	31%	.96	12.0	45%	1.35	36%	13.0	43.3%
TRANSIT										
MUNI	.31			.77			1.08	28.8		
BART	.16			.40			.56	15.1		
AC Transit	.09			.22			.31	8.4		
SAMTRANS	.02			.04			.06	1.5		
SPRR	.05			.12			.17	4.4		
GGT Buses	.05			.13			.18	4.6		
GGT Ferry	.02			.04			.06	1.4		
TRANSIT TOTAL	.70	2.40	72%	1.72	9.2	34.5%	2.42	64.6%	11.6	38.7%
OTHER: (Incl. Pedestrians)	.02	0.10	3%	.07	5.9	22%	0.09	2.4%	6.0	20.0%
TOTAL, with MUNI Transfers	1.11	3.53	106%	2.75	27.1	101.5%	3.86	103.0%	30.6	
Percent by Trip Purpose			(11.7%)			(90.3%)		(12.9%)	(102%)	102%
TOTAL, without MUNI Transfers	1.08	3.33	100%	2.67	26.67	100%	3.75	100%	30.0	100%
Percent by Trip Purpose			(11%)			(89%)		(12.5%)	(100%)	

TABLE F-5

PERSON TRIPS GENERATED BY OCCUPIABLE OFFICE SPACE IN THE PROPOSED PROJECT BY TRIP PURPOSE, TIME OF TRAVEL AND MODE

MODE	PM PEAK HOUR WORK TRIPS	TOTAL DAILY WORK TRIPS	P.M. PEAK HOUR NON-WORK TRIPS	TOTAL DAILY NON-WORK TRIPS	P.M. PEAK PEAK HOUR PERSON TRIPS	TOTAL DAILY PERSON TRIPS
AUTO:						
S.F. CBD				604		604
S.F. Remainder	253	664	20	906	273	1,570
S.F. TOTAL	253	664	20	1,510	273	2,174
East Bay	175	483	13	241	188	724
Peninsula	157	423	12	241	169	664
North Bay	121	302	9	61	130	363
AUTO TOTAL	706	1,872	54	2,053	760	3,925
TRANSIT						
MUNI	568		44		612	
BART	295		23		318	
AC Transit	163		13		176	
SAMTRANS	31		2		33	
SPRR	85		7		92	
GGT Buses	91		7		98	
GGT Ferry	31		2		33	
TRANSIT TOTAL	1,268	4,347	98	1,570	1,366	5,917
OTHER: (Incl. Pedestrians)	48	181	4	966	52	1,147
TOTAL, with MUNI Transfers	2,022	6,400	156	4,589	2,178	10,989
TOTAL, without MUNI Transfers	1,962	6,038	151	4,529	2,113	10,567

TABLE F-6

PERSON TRIPS GENERATED BY RENTABLE RETAIL SPACE IN THE PROPOSED PROJECT BY TRIP PURPOSE, TIME OF TRAVEL AND MODE

MODE	PM PEAK HOUR WORK TRIPS	TOTAL DAILY WORK TRIPS	P.M. PEAK HOUR NON-WORK TRIPS	TOTAL DAILY NON-WORK TRIPS	P.M. PEAK PEAK HOUR PERSON TRIPS	TOTAL DAILY PERSON TRIPS
AUTO:						
S.F. CBD				77		77
S.F. Remainder	3	8	8	117	11	125
S.F. TOTAL	3	8	8	194	11	201
East Bay	2	6	5	35	7	42
Peninsula	2	5	2	28	7	33
North Bay	2	4	4	7	5	9
AUTO TOTAL	9	23	22	264	31	285
TRANSIT						
MUNI	7		17		24	
BART	4		9		12	
AC Transit	2		5		7	
SAMTRANS	--		1		1	
SPRR	1		2		4	
GGT Buses	1		3		4	
GGT Ferry	--		1		1	
TRANSIT TOTAL	15	53	38	202	53	254
OTHER: (Incl. Pedestrians)	--	2	2	130	2	131
TOTAL, with MUNI Transfers	24	78	62	596	85	670
TOTAL, without MUNI Transfers	24	73	58	587	82	657

TABLE F-7

PERSON TRIPS GENERATED BY PROPOSED PROJECT'S SERVICE/MAINTENANCE EMPLOYEES*

	WORK TRIPS		TOTAL
	Total Daily Work Trips	Percent of Daily Work Trips by Mode	Total Daily Work Trips
AUTO:			
S.F. CBD			
S.F. Remainder	14	11%	14
S.F. TOTAL	14	11%	14
East Bay	10	8%	10
Penninsula	9	7%	9
North Bay	7	5%	7
AUTO TOTAL	40	31%	40
TRANSIT TOTAL	94	72%	94
OTHER: (Incl. Pedestrians)	4	3%	4
TOTAL, With MUNI Transfers	138	106%	138
TOTAL, Without MUNI Transfers	130	100%	130

*It is assumed that service/maintenance employees would make 2.0 trips per day, with no allocation for non-work trips. Although some work trips may take place during the p.m. peak hour, it is assumed that the trips would occur in the reverse direction of p.m. peak hour flows, and would not add to the impact on transportation systems and roads.

B. PROJECTS INCLUDED IN CUMULATIVE IMPACT ASSESSMENT

Projects considered in the analysis of cumulative impacts of new downtown development are listed in Table F-8. This list is based on the San Francisco Department of City Planning's Guidelines, Attachment 2 (revised October 1980). Estimated square footage, number of employees, p.m. peak hour person trips and modal splits have been provided for the 13 projects currently under construction or approved for construction.

C. VEHICLE TRIP GENERATION AND VEHICLE MILES TRAVELED

Average daily and p.m. peak hour vehicular (automobile) trips were calculated on the assumption that there were 1.4 automobile person trips per vehicle.[1] Table F-9 displays estimated p.m. peak hour and daily vehicular trips generated by the proposed project and other new downtown development.

D. SITE-GENERATED TRUCK AND SERVICE DELIVERY VEHICLE TRIPS

Estimates of current and projected trips by trucks and delivery vehicles to the project site were based on a San Francisco Department of City Planning report published in September 1980.[2] These are shown in Table F-10.

E. STREET CAPACITY ANALYSIS

The Highway Capacity Manual, Special Report No. 87[3] was used to determine the capacity of Sutter and Sansome Streets immediately adjacent to the project site and to determine existing and projected Levels of Service of traffic on those streets Factors considered in the analysis included traffic flow patterns, the width of the streets, the amount of parking available on the streets, the location of the project site in the central business district, the size of the metropolitan area, the current volumes at intersections of the streets with

Text continues on page 224.

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[1]San Francisco City Planning Commission, Final Environmental Impact Report, 101 California Street, 18 May 1979, p. 90.

[2]San Francisco Department of City Planning, Approaches for Resolving Issues of Downtown Conservation and Development, Appendix G, Requirements and Procedures for Off-Street Goods Delivery, September 1980.

[3]Highway Capacity Manual, Special Report No. 87, by the Highway Research Board of the Division of Engineering and Industrial Research, National Academy of Sciences -- National Research Council (Washington D.C.), 1965, Chapter 6 ("At-Grade Intersections"), p. 111-159.

TABLE P-8

LIST OF PROJECTS, APPROVED OR UNDER CONSTRUCTION, TO BE COMPLETED 1981-1983

					Peak Hr. Person Trips Modal Split												
											Auto						
EE.	Project	Total Area (net f^2)	No. Of Empl.	Total Peak Hr. Person Trips	AC	BART	Samtrans	SPRR	Ferry	GGBHTD	NB	SB	EB	SF	MUNI	Other	Date Occupied
74.254	444 Market: Shaklee	696,600 office 31,600 retail	3642	2367	199	359	36	105	34	111	163	209	247	252	684	53	1981
77.164	Pacific Bldg. III - Apparel Mart	286,000 office 10,000 retail	1480	995	84	151	15	44	14	47	69	83	104	106	287	22	1983
77.256	Levi's Plaza	825,000 office	4125	2681	225	406	41	119	38	126	185	223	280	286	774	60	1983
78.27	101 California: ITEL	1,153,900 office 53,000 retail	6035	3776	318	572	58	167	54	177	260	314	394	403	1091	84	1983
78.207	Federal Reserve Bank	460,000 office	2300	1495	126	227	23	66	21	70	103	125	156	159	432	33	1982
78.298	1 Montgomery: Crocker Tower	568,000 office 86,000 retail	3270	2405	202	365	37	106	34	113	164	200	251	256	695	54	1982

TABLE F-8 (CONTINUED)

LIST OF PROJECTS, APPROVED OR UNDER CONSTRUCTION, TO BE COMPLETED 1980-1983

					Peak Hr. Person Trips Modal Split												
											Auto						
EE.	Project	Total Area (net f^2)	No. Of Empl.	Total Peak Hr. Person Trips	AC	BART	Samtrans	SPRR	Ferry	GGBHTD	NB	SB	EB	SF	MUNI	Other	Date Occupied
78.413	150 Spear St.	260,000 office 4,800 retail	1324	876	74	133	13	39	13	41	60	73	92	93	253	20	1981
	Embarcadero 4	750,000 office 90,000 retail	4200	3023	254	458	46	134	43	142	208	252	316	322	873	67	1981
79.57	DAON Building Battery & Sacramento	233,000 office 3,800 retail	1187	784	66	119	12	35	11	37	54	66	82	84	226	18	1981
79.169	The Pacific Lumber Bldg Washington & Sansome	93,000 office 7,900 retail	507	356	30	54	5	16	5	17	25	31	37	38	103	8	1981
79.178	456 Montgomery	126,400 office 21,000 retail	737	547	46	83	8	24	8	26	38	46	57	58	160	12	1982

TABLE F-8 (CONTINUED)

LIST OF PROJECTS, APPROVED OR UNDER CONSTRUCTION, TO BE COMPLETED 1980-1983

					Peak Hr. Person Trips Modal Split												
											Auto						
EE.	Project	Total Area (net f^2)	No. Of Empl.	Total Peak Hr. Person Trips	AC	BART	Samtrans	SPRR	Ferry	GGBHTD	NB	SB	EB	SF	MUNI	Other	Date Occupied
79.196	315 Howard	340,231 office 5,000 retail	1726	1138	96	173	7	50	16	53	78	95	119	212	329	25	1982
78.61	Pacific Gateway	564,000 office 7,550 retail	3072	1997	168	303	31	88	29	93	138	166	208	213	577	45	1983
TOTAL		6,356,531 office 320,650 retail	33,605	22,440	1888	3403	332	993	320	1053	1545	1883	2343	2391	6484	501	

Source: San Francisco Department of City Planning, Guidelines, Attachment 2. Note that the proposed One Sansome project has been removed from this table, and the totals have been adjusted.

TABLE F-9

TOTAL DAILY AND P.M. PEAK-HOUR VEHICLE (AUTO) TRIPS GENERATED BY THE PROPOSED PROJECT AND OTHER NEW DOWNTOWN DEVELOPMENT[1]

	P.M. PEAK HOUR VEHICLE (AUTO) TRIPS			TOTAL DAILY VEHICLE (AUTO) TRIPS		
	ONE SANSOME	ALL OTHER PROJECTS[2]		ONE SANSOME	ALL OTHER PROJECTS[3]	
Residence	Vehicle Trips	Vehicle Trips	TOTAL P.M. PEAK HOUR TRIPS	Vehicle Trips	Vehicle Trips	TOTAL DAILY TRIPS
San Francisco CBD				490	3,500	3,990
S.F. Remainder	203	2,414	2,617	1,220	9,100	10,320
East Bay	139	2,410	2,549	550	12,600	13,150
Peninsula	126	1,951	2,077	500	10,200	10,700
North Bay	97	1,591	1,688	270	8,300	8,570
Totals (Rounded to 100's)	565	8,366	8,931	3,000	43,700	46,700

[1]Vehicle trips = Person Trips (Auto) divided by 1.4.

[2]Figures include those listed in Table G-8 and estimated vehicle trips from the following projects: B of A Data Center II (EE 74.128); 333 Market: Bechtel I (EE 74.224); 595 Market (EE 74.322); 601 Montgomery (EE 76.434).

[3]Assumes same geographical proportion as given for the p.m. peak hour; adjustment made using the ratio of One Sansome p.m. peak hour trips to One Sansome total daily trips.

TABLE F-10
ESTIMATED SERVICE/DELIVERY TRIPS GENERATED BY THE PROJECT

	Gross Area (Square Feet)	Truck Delivery Vehicle Trips per 10,000 sq.ft.[1]	Average Daily Truck/ Delivery Vehicle Trips[2]	Peak Hour Service/ Delivery Vehicle Trips[3]
Existing Uses				
Office	98,700	2.1	21	
Retail (Apparel)	3,000	4.5	1	
Bank	50,600	3.0	15	
Total	152,300		37	5
Proposed Uses				
Office	702,900	2.1	148	
Retail (Unspecified)	7,900	2.2	2	
Bank/Retail	17,400	3.0	5	
Total	728,200		155	22

[1] San Francisco Department of City Planning, Approaches for Resolving Issues of Downtown Conservation and Development "Requirements and Procedures for Off-Street Goods Delivery", September 1980, and San Francisco City Planning Commission Final Environmental Impact Report, 315 Howard Street, EE 79.196, 30 May 1980, p. 76. It is assumed that 5% of all service vehicles would be large trucks, with the remainder being delivery vehicles, vans, etc. Therefore, space in the proposed project would generate 8 large truck visits, compared to 2 large truck visits for existing space.

[2] An average stop of 25 minutes per truck is assumed.

[3] Peak hour means any hour in which the highest number of trips per hour occurs:

$$\text{Peak hour trips} = \frac{\text{Average Daily Vehicle Trips} \times 1.25}{9}$$

Factor of 1.25 from San Francisco Department of City Planning, Approaches for Resolving Issues of Downtown Conservation and Development, p. G-5

other streets, signal cycles of the intersections, the number of turns, and the number of trucks and buses passing through the streets under consideration. Street capacities were calculated as shown in Table F-11).

1. Construction Impacts on Traffic Flows

Sutter Street would be impacted by construction activity generated by the proposed project. The available width of the street would decrease from 40 feet to 29 feet, truck traffic would increase, and local buses would stop on Sutter at Montgomery Street. A worst-case assessment of street capacity during the p.m. peak hour assumes traffic flows and truck deliveries would remain constant throughout the construction period. At this rate, traffic would increase from the current (1980) level of 32.3% to 42.5% of street capacity during construction activity, with Level of Service A.

2. Proposed Project's Impact on Traffic Flows

The worst-case scenario for traffic impact analysis of the proposed project assumed that all p.m. peak hour person trips using, but not driving, autos would be picked up in front of the building. The number of auto passengers can be determined using the formula: $P = A - A/1.4$, where

P = Auto passengers to be picked up
A = Total number of auto person trips
1.4 = Number of passengers per auto

For purposes of this analysis, it was assumed that 1/3 of all parkers would park north of Market Street and 2/3 of all parkers would park south of Market Street. Thus, there would be a corresponding distribution of autos approaching from Market Street (2/3) and southbound on Sansome Street (1/3). Further, it was assumed that the number of autos turning northbound onto Sansome Street would follow the same proportion as that currently occurring at that intersection.

With an estimated p.m. peak hour automobile person trip total of 791, the number of passengers needed to be picked up would be 226, distributed as follows:

Autos approaching southbound on Sansome Street =	75
Autos approaching westbound from Market Street:	
Right turn on Sansome Street =	50
Westbound on Sutter Street =	101
Total =	226

TABLE F-11

STREET CAPACITIES[1]

	Vehicles Per Hour of Green	Metro Adjustment	Green/ Cycle[2]	Turns	Trucks	Local Bus	Capacity
Market 1	3,600	1.4	0.37	1.00	1.00	0.94	1,427
Sutter 2	3,600	1.4	0.32	1.00	1.00	1.00	1,313
Sansome 3	1,100	1.14	0.35	1.00	1.00	1.00	439
Sansome 4	900	1.14	0.37	1.00	1.00	0.90	342

NOTE:
Market 1 = Sutter Street westbound approaching Sansome Street
Sutter 2 = Sutter Street westbound approaching Montgomery Street
Sansome 3 = Sansome Street northbound approaching Bush Street
Sansome 4 = Sansome Street southbound approaching Sutter Street

[1]Methodology follows the Highway Capacity Manual, Special Report No. 87, op.cit.

[2]M. Rand, Associate Traffic Engineer , San Francisco Traffic Division, telephone conversation, 17 Oct. 1980.

E. CALCULATIONS FOR PEDESTRIAN ANALYSIS

1. Levels of Service

Pedestrian volumes, when expressed as pedestrian densities, may be used to describe and assess the ease of movement, speed of progress and level of unavoidable physical contact a pedestrian using a sidewalk, crosswalk, or passageway will experience. Seven Levels of Service representing ranges of conditions have been defined. From the best to the worst they are as follows: A (Open); B (Unimpeded); C (Impeded); D (Constrained); E (Crowded); F (Congested); and G (Jammed). Table F-12 and Figure F-1 describe and illustrate these Levels of Service for average flows on sidewalks. Table F-13 describes corresponding pedestrian densities for average and platoon flows, Table F-14 describes Levels of Service for intersections and crosswalks.

For each sidewalk adjacent to the project site, existing levels of service have been calculated for two conditions: average flow and platoon flow. The average flow represents a condition in which pedestrians are scattered along the sidewalk with little or no bunching. Platoon flow occurs when pedestrians bunch up and proceed in groups along the sidewalk (Figure F-2). In most cases, platooning is caused by the release of a group of pedestrians by an elevator, bus or traffic signal. The bunching allows each pedestrian less room in which to maneuver, resulting in decreased speed and a feeling of congestion.

2. Pedestrian Survey

On 17 September 1980, pedestrian counts were taken during the mid-day peak period (11:30 a.m. to 1:30 p.m.) and the p.m. peak period (4:00 p.m. to 6:00 p.m.) to update previous counts taken on 4 October 1978.[1] The peak 5-minute flows from the most recent counts have been converted into a measure of pedestrians

Text continues on page 232.

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[1]These separate counts produced results within a range of -2% to +20% for the mid-day peak period and from -31% to +15% for the afternoon peak period, except for the Sutter Street sidewalk during the afternoon peak period. The Sutter Street sidewalk was observed to have a pedestrian flow reduction of over 281%, which may be attributable in part to the opening of the MUNI Metro Subway, resulting in reduced number of MUNI patrons using surface transportation. Given current pedestrian volumes, these changes do not provide any evidence of change in pedestrian levels of service over the 2-year period.

TABLE F-12

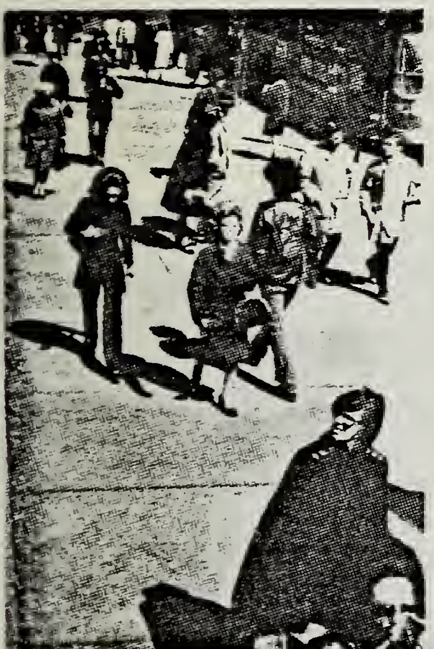
PEDESTRIAN LEVEL OF SERVICE DESCRIPTIONS: SIDEWALKS

Level of Service	Average Flow, Service Volume: Pedestrians Per Minute per Foot	Description
A (Open)	Under 0.5	Free flow, no interaction between pedestrians.
B (Unimpeded)	0.5 - 2.0	In the lower range complete freedom to select the speed and direction of movement; individuals move independently of each other. At the upper end some indirect interaction with others occurs.
C (Impeded)	2.1 - 6.0	Choice of speed remains virtually unrestricted, physical conflicts with other pedestrians are absent, but pedestrian navigation does require constant indirect interaction with others.
D (Constrained)	6.1-10.0	Speed is occasionally restricted, but still close to free flow, crossing and passing are possible, but with interference and likelihood of conflicts.
E (Crowded)	10.1-14.0	Partial restriction of speed, high probability of conflicts, difficulty in passing without abrupt maneuvers.
F (Congested)	14.1-18.0	Conflict is unavoidable, constant adjustment of gait necessary, passing rarely possible without touching. Speed about 75% of free flow.
G (Jammed)	Over 18.0	No choice of speed, shuffling only, passing is impossible and physical contact unavoidable.

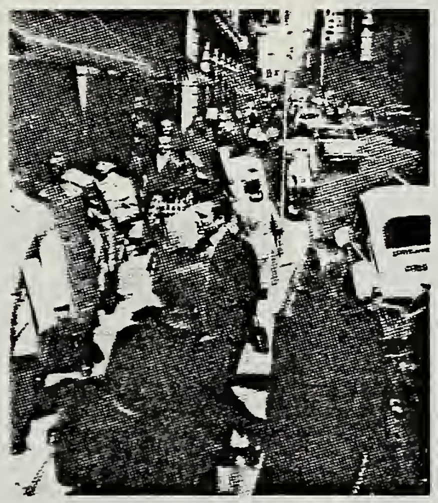
Source: Pushkarev, Boris, and Jeffrey M. Zupan, Urban Space for Pedestrians, MIT Press, Cambridge, 1975, pp 85-92.

figure F1 PEDESTRIAN FLOWS

Source: Pushkarev, Boris and Jeffrey M. Zupan; op. cit., p. 90-91.



LEVEL "B/C"



LEVEL "D"

LEVEL "E"

LEVEL "F"

LEVEL "G"

TABLE F-13

PEDESTRIAN DENSITIES AND LEVELS OF SERVICE FOR AVERAGE AND PLATOON FLOWS: SIDEWALKS

AVERAGE FLOW			POSSIBLE FLOW IN PLATOONS		
Level of Service	PEDESTRIAN DENSITIES (Sq.Ft. Per Person)	Flow Rate Ped/Min/Ft	Level of Service	PEDESTRIAN DENSITIES (Sq.Ft. Per Person)	Flow Rate Ped/Min/Ft
A	Over 530	Under 0.5	A	N/A	N/A
B	530-130	0.5-2.0	B	N/A	N/A
C	130-40	2.1-6.0	C	60-40	4.5-6.0
D	40-24	6.1-10.0	D	40-24	6.1-10.0
E	24-16	10.0-14.0	E	24-16	10.1-14.0
F	16-11	14.1-18.0	F	16-11	14.1-16.0
G	N/A	N/A	G	Under 11	Over 18.0

Source: Pushkarev, Boris, and Jeffrey M. Zupan, Urban Space for Pedestrians, MIT Press, Cambridge, 1975, p. 98.

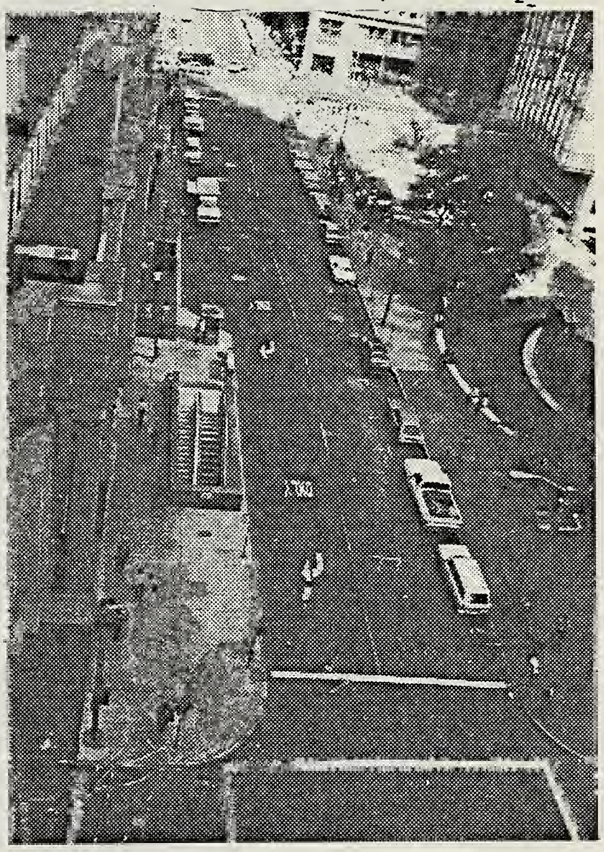
figure F2 PEDESTRIAN FLOWS

Source: John M. Sanger Associates Inc Wednesday, 4 October 1978

AVERAGE FLOW
Sutter Street, 12;15p.m.

PLATOON FLOW
Sansome Street, 12:15p.m.

AVERAGE FLOW
Sansome Street, 12:15p.m.



PLATOON FLOW
Sansome Street, 5:15p.m.

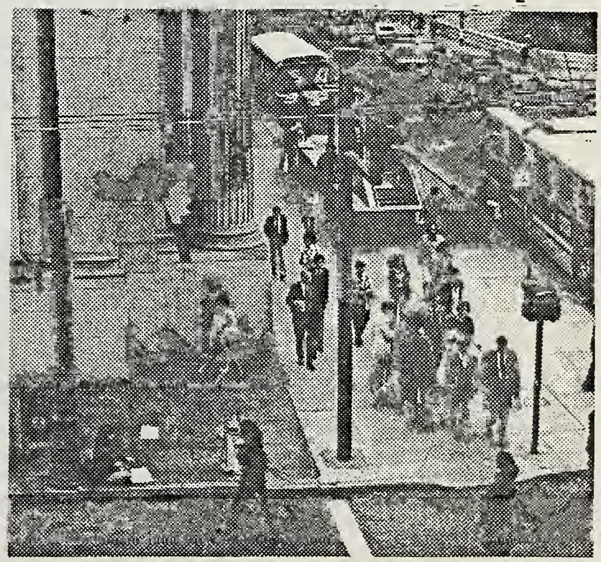


TABLE F-14

PEDESTRIAN LEVEL OF SERVICE DESCRIPTIONS: INTERSECTIONS AND CROSSWALKS

Level of Service	Minimum Crosswalk Space Per Person (Square Feet)	Description
A (Open)	Over 10.5	Free flow.
B (Unimpeded)	8 - 10.5	Starting times are short. Crossing speeds are almost free flowing. The tightest space allocation in the crosswalk the moment two opposing platoons meet is on the order of 10 square feet per person.
C (Impeded)	4.5 - 7.9	No problem likely in crossing in available time. The minimum area for passing of the two platoons decreases to less than 10 square feet per person causing some delay which is made up for by a quicker gait.
D (Constrained)	Less than 4.5	Minimum pedestrian green time begins to exceed time necessary to get all pedestrians across the street. Available reservoir space begins to block sidewalk flows, and passing within the painted crosswalk area becomes impossible.

Source: Pushkarev, Boris and Jeffrey M. Zupan, op. cit., p. 114-115.

per minute per foot (PMF) of effective sidewalk width.[1] This measure and corresponding estimate of density are used to estimate pedestrian comfort and maneuverability.

3. Existing Flows: Sidewalks

The average flow on sidewalks immediately adjacent to the site is currently equivalent to level of service "C" during the mid-day and afternoon peak 5-minute period (Table F-15 and Figure F-3). At this level of flow, a pedestrian in a platoon is believed to experience a condition analogous to level of service "D".[2] With the average flow condition, a pedestrian has approximately 70 square feet (Sansome) and 130 square feet (Sutter) of personal walking area. Under the corresponding platoon condition, available space drops to 24-40 square feet per person.

During the afternoon peak period, level of service "C" prevails on Sansome Street south of the BART subway portal, with level "B" on Sutter Street except when sidewalk blockage occurs as a result of pedestrians queuing for the buses. The effective sidewalk width was observed to drop to 5' during each queuing, resulting in a temporary level of service "C" with average flows and level "D" with platoon flows.

During the afternoon peak period, the sidewalk immediately north of the Sansome BART-MUNI portal has an average flow equivalent to level of service "E" with a condition close to "F" under platoon flow conditions due to the number of pedestrians approaching the portal. The available space ranges between 22 sq.ft (E) and 11-16 sq.ft. (F) per pedestrian.

4. Existing Flows: Crosswalks and Intersections

The crosswalk and intersection analysis is focused on the amount of space available in the crosswalk for passing pedestrians when opposite flows intersect, and the amount of space required by queuing pedestrians waiting for a "walk" signal at the intersection. (The latter is known as the crosswalk reservoir.)

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[1]Effective Sidewalk: The portion of the sidewalk which is actually used for passage. Studies of pedestrian behavior have found that pedestrians tend to walk 1'-1.5' away from curbs and building faces.

[2]Pushkarev, Boris, and Jeffrey M. Zupan, Urban Space for Pedestrians, MIT Press, Cambridge, 1975.

TABLE F-15

SUTTER/SANSOME SIDEWALK CONDITIONS: EXISTING

			PEAK 5 MINUTE FLOW CONDITIONS				PEAK PLATOON FLOW CONDITIONS		
Location	Sidewalk Width	Average Effective Sidewalk Width	Peak 5 Minute Flow (Persons)	Peak Flow: Pedestrians Per Minute Per Foot (PMF)	Sidewalk Area Per Person (Sq.Ft./Person)	Level of Service	Peak Flow: Pedestrians Per Minute Per Foot (PMF)	Sidewalk Area Per Person (Sq.Ft./Person)	Level of Service
Mid-Day Peak									
Sutter St. Sidewalk	15'	12'	127	2.1	128	C	6-10	40-24	D
Sansome St. Sidewalk (So. of BART Portal)	12'	9'	206	4.6	72	C	6-10	40-24	D
Afternoon Peak									
Sutter St. Sidewalk	15'	12'	120	2.0	130	B	6-10	40-24	D
Sutter St. Sidewalk With Bus Queuing*	15'	5'	130	5.2	58	C	6-10	40-24	D
Sansome St. Sidewalk (So. of BART Portal)	12'	9'	214	4.8	67	C	6-10	40-24	D
Sansome St. Sidewalk (No. of BART Portal)	12'	9'	492	10.9	22	E	14-18	16-11	F

*Calculated as a residual of all pedestrian flows during the peak 5 minute flow (5:10 pm)
Source: John M. Sanger Associates Inc, Survey of 17 September 1980

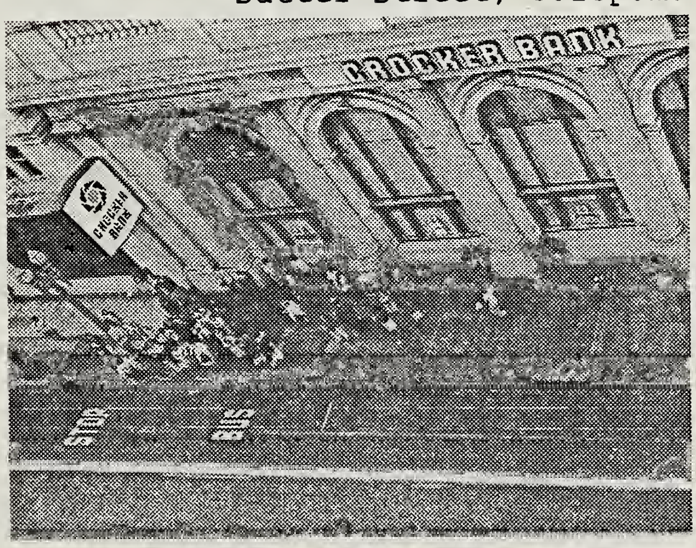
figure F3 PEDESTRIAN FLOWS

Source: John M. Sanger Associates Inc

Wednesday 4 October 1978

AVERAGE FLOW
SERVICE LEVEL B & C
Sansome Street, 5:15p.m.

PLATOON FLOW
BUS QUEUING
Sutter Street, 5:15p.m.



Estimates of space and conditions are noted below for the worst case. Reported amounts of reservoir space are those necessary to accommodate the peak flow from the indicated curb area. The estimated minimum crosswalk space was calculated for the 5-minute periods with the greatest bi-directional flow.[1]

During peak periods, Sutter and Sansome pedestrian crosswalks were observed to have level of service "A" (Table F-16). Both have adequate space for the conflicting flows to pass within the confines of the crosswalk with very little friction. Adequate space is available at the four corners for pedestrians waiting for a "walk" signal.

5. Assumptions Regarding Impacts of the Proposed Project

Pedestrian impacts of the project are assumed to be greatest on the sidewalks and crosswalks adjacent to the proposed building. Two sets of assumptions regarding pedestrian behavior have been made: one for the mid-day peak period and one for the afternoon peak period.

a. Mid-Day Peak Period Assumptions

(1) The number of pedestrians traveling to and from the proposed building during the peak hour would be equivalent to the estimated building population of 3100. These would not only be persons employed within the building, but a mix of visitors and employees.

(2) The following distribution was assumed based on likely destinations: 50% of the trips would be to and from the central retail district to the west of the building in the vicinity of Union Square; 30% would be to and from the area north of the building in the vicinity of Embarcadero Center; and 20% of the trips would be to and from Market Street.

(3) Trips to and from the Union Square area were assigned to Sutter Street and the Sutter Street entrance of the proposed building; Embarcadero Center trips were assigned to Sansome Street and the Sansome Street entrance; Market Street trips were assigned to Sutter Street and divided according to the existing distribution between the Sansome and Sutter crosswalks.

Table F-17 shows the projected distribution of mid-day pedestrian peak flows on the sidewalks and crosswalks adjacent to the project site.

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[1]The general methodology employed for this analysis is that presented in Pushkarev, Boris and Jeffrey M. Zupan, op. cit., pp 110-115.

TABLE F-16

SUTTER/SANSOME CROSSWALK CONDITIONS: EXISTING

Location	Crosswalk Width (Feet)	Crosswalk Length (Feet)	Signal Timing % Green Time Available (Minutes)	Peak 5 Minute Flow (Persons)	Peak 1 Minute Flow (Persons)	Estimated Non-Green Queue (Persons)	Relative Accumulation	Estimated Queuing Reservoir (Sq. Ft.)	Estimated Minimum Crosswalk Space (Sq. Ft.)	Level of Service
Mid-Day Peak										
Sutter St. Crosswalk	18	39	0.60						11	A
Northbound				98	19.6	7.8	.43	23-39		
Southbound				115	23.0	9.2	.51	28-46		
Sansome St. Crosswalk	15	34	0.60						11	A
Westbound				94	18.8	7.5	.50	23-38		
Eastbound				52	10.4	4.2	.28	13-21		
Afternoon Peak										
Sutter St. Crosswalk	18	39	0.60						11	A
Northbound				54	10.8	4.3	.24	13-21		
Southbound				118	23.6	9.4	.52	28-47		
Sansome St. Crosswalk	15	34	0.60						12	A
Westbound				45	9.0	3.6	.24	11-18		
Eastbound				39	7.8	3.1	.21	9-16		

Source: John M. Sanger Associates Inc, Survey of 17 September 1980

TABLE F-17

PROPOSED ONE SANSOME STREET BUILDING
DIRECTION OF MID-DAY PEAK HOUR PEDESTRIAN TRIPS BY AREA

	SUTTER ST.		SANSOME ST.		SUTTER CROSSWALK		SANSOME CROSSWALK	
	West-Bound	East-Bound	North-Bound	South-Bound	North-Bound	South-Bound	West-Bound	East-Bound
Union Square Area	780	780						
Embarcadero Center Area			469	469				
Market Street Area	311	312			202	228	109	83
Mid-Day Project Impact	1091	1092	469	469	202	228	107	87
Current Peak Mid-Day Pedestrian Flows (Observed Flows x 2)	708	548	912	1250	938	1120	522	402
Projected Mid-Day Peak Hour Flow	1799	1640	1381	1719	1140	1348	631	485
Percent of Current Peak 5-Minute Flow to Peak Hour Flow	10%	12%	12%	10%	10%	10%	11%	13%
Projected Peak 5-Minute Mid-Day Flow	172	190	166	170	119	138	70	63

Source: John M. Sanger Associates Inc

b. Afternoon Peak Period Assumptions

(1) All p.m. peak hour person-trips would originate from the building.

(2) Individuals leaving the building would use the shortest or quickest path to their mode of transportation.

(3) Two-thirds of the automobiles coming into the downtown as a result of the proposed project would be parked south of Market, and one-third north of Market.

(4) Within the peak hour the new trips would be distributed in the same proportion during the hour as the present distribution on the affected sidewalks and crosswalks.

(5) The ratio of the projected 5-minute peak flow to the projected peak hour flow would be the same as the current ratio of peak 5-minute to hourly flow.

(6) Only the impacts of the project on the adjacent sidewalks and crosswalks are calculated. The increase in pedestrian flows due to other new downtown development could be distributed to several streets surrounding the Sutter and Sansome Street area, as there are many routes a pedestrian may choose that are approximately the same distance. A comparison of 1978 and 1980 pedestrian flows of the Sutter/Sansome areas shows that despite the addition of four projects in the downtown area, there was no statistically significant increase in flows; furthermore, there was a decline in the number of westbound pedestrians on the Sutter Street sidewalk, possibly due to the opening of the MUNI Subway and a decline in the number of patrons using surface transportation.

Table F-18 shows the projected distribution of afternoon pedestrian peak flows on the sidewalks and crosswalks adjacent to the project site.

7. Projected Impacts on Sidewalks

If the proposed building were constructed, the level of service on portions of the Sutter and Sansome sidewalk would decline due to the increase in pedestrian volumes on the sidewalks west and north of the site where no increase in effective sidewalk width would occur.

Under the worst-case conditions, the mid-day average peak flow on the Sutter Street sidewalk would decline to level of service "D", while the Sansome Street sidewalk would be at level "E" (Table F-19) (Sansome and Sutter sidewalks immediately adjacent to the building would actually have higher levels of service, as there would be an increase in the effective sidewalk width due to the plaza and arcade. The worst

TABLE F-18

DIRECTION OF P.M. PEAK HOUR PEDESTRIAN TRIPS BY MODE OF EGRESS FROM PROPOSED ONE SANSOME BUILDING

MODE	P.M. Peak Hour Trips	SUTTER STREET West-Bound	SUTTER STREET East-Bound	Bus Queue	SANSOME STREET North-Bound	BART-MUNI Connection	Sutter Cross-Walk South-Bound	Sansc Cross Walk East-Bound
Auto								
San Francisco	284	95	95		94		48	47
East Bay	195		195				98	97
Peninsula	176		176				88	88
North Bay	136				136			
MUNI	636	95	144	144	144	109	114	30
BART	331					332		
AC Transit	183		183				91	92
SAMTRANS	35		35				18	17
SPRR[1]								
GGT Bus	102						18	17
GGT Ferry	35		35		103			
Other	54	18	18		18		9	9
TOTALS	2169	208	881	144	495	441	484	397
Projected Peak 5-Minute pm. Flows (Project Only)		68	192	48[2]	90	268	178	92

[1] It is assumed that the 95 passengers using the Southern Pacific Railroad will use MUNI to get to the terminal at 4th & Townsend, and will exit on Sutter Street westbound.

[2] Peak queue is assumed to be 33% of total peak hour queue.

Source: John M. Sanger Associates Inc

TABLE F-19

SUTTER/SANSOME SIDEWALK CONDITIONS: PROJECTED[1]

Location	Sidewalk Width	Average Effective Sidewalk Width	PEAK 5 MINUTE FLOW CONDITIONS: Peak 5 Minute Flow (Persons)	Peak Flow: Pedestrians Per Minute Per Foot (PMF)	Sidewalk Area Per Person (Sq.Ft./Person)	Level of Service	PEAK PLATOON FLOW CONDITIONS: Peak Flow: Pedestrians Per Minute Per Foot (PMF)	Sidewalk Area Per Person (Sq.Ft./Person)	Level of Service
Mid-Day Peak									
Sutter St. Sidewalk	15'	12'	439	7.3	35	D	6-10	40-24	D
Sansome St. Sidewalk (So. of BART Portal)	12'	9'	486	10.8	22	E	14-18	16-11	F
Afternoon Peak									
Sutter St. Sidewalk	15'	12'	336	5.6	49	C	6-10	40-24	D
Sutter St. Sidewalk With Bus Queuing[2]	15'	5'	385	15.4	14	F	Over 18	Below 11	G
Sansome St. Sidewalk (So. of BART Portal)	12'	9'	289	6.4	38	D	10-14	24-16	E
Sansome St. Sidewalk (No of BART Portal)	12'	9'	567	12.6	19	E	14-18	16-11	F

[1]Flows were projected by adding the project's impact to the existing flows, less current pedestrian generation from project site. (17.7% of projected flows). Projections represent worst-case conditions since no credit is given for additional sidewalk width provided by the plaza and arcade.

[2]Calculated as a residual of all pedestrian flows during the projected peak flow.

condition would be at and beyond the northern (Sansome) property line. The average available square footage per person on this sidewalk would drop approximately 60% from the present condition to level of service "E". The peak platoon flow for these sidewalks would be equivalent to level of service "F".

During the afternoon, the average peak 5-minute flow on Sutter Street west of the site would be at level of service "C" and the platoon flow would be at Level "D". This would be a reduction of approximately 55% of available square footage per pedestrian over the existing condition. On Sutter immediately adjacent to the site, severe sidewalk blockage occurs as a result of pedestrian queuing for the buses. If the queuing were to increase as a result of the proposed building, and if pedestrians did not use the proposed arcade area to queue or to avoid the queue, the level of service would be lower than that projected for Sutter west of the building. For example, an effective sidewalk width of 5 feet instead of 12 feet due to bus queues would result in a decline to level "F" for average flow and "G" for platoon flows. The latter would be the worst case condition.

Sansome Street, north of the BART-MUNI portal, would be at level "E" during afternoon peak flows, and at level "F" during platoon flows. Sansome Street, south of the BART-MUNI portal, would have level of service "D" during average flows and level of service "E" during platoon flows, if pedestrians did not use the plaza for passage.

8. Projected Impact on Crosswalks

Projected increase in pedestrian volume on Sutter Street and Sansome Street sidewalks during the mid-day peak would result in an increased load on the crosswalks, and service at level "B". As shown on Table F-20, the amount of space necessary for queuing would increase in proportion to the increase in levels of flow on the adjacent sidewalks.

During the afternoon peak period, the Sutter Street and Sansome Street crosswalks would be at level "B". The queuing reservoirs for the northern portion of the Sutter crosswalk and the western portion of the Sansome sidewalk would increase.

F. IMPACTS ON INDIVIDUAL MUNI LINES

The Guidelines outline a methodology to be followed when assessing impacts on MUNI from future downtown development in San Francisco. This analysis is to be done on a line-by-line basis for routes within 2000 feet of the project site. Base tables evaluating the October 1980 condition and the projected 1983 condition of routes in the Center City area already include the One Sansome project; however, the number of trips allocated to the MUNI system for the proposed project has been changed due to a reduction in building size. The original

TABLE F-20

SUTTER/SANSOME CROSSWALK CONDITIONS: PROJECTED[1]

Location	Crosswalk Width (Feet)	Crosswalk Length (Feet)	Signal Timing % Green Time Available (Minutes)	Peak 5 Minute Flow (Persons)	Peak 1 Minute Flow (Persons)	Estimated Non-Green Queue (Persons)	Relative Accumulation	Estimated Queuing Reservoir (Sq. Ft.)	Estimated Minimum Crosswalk Space (Sq. Ft.)	Level of Service
Mid-Day Peak										
Sutter St. Crosswalk	18	39	0.60						8	B
Northbound				193	38.6	15.4	.86	46-77		
Southbound				227	45.4	18.2	1.01	55-91		
Sansome St. Crosswalk	15	34	0.60						10	B
Westbound				151	30.2	12.1	.81	36-61		
Eastbound				104	20.8	8.3	.55	25-42		
Afternoon Peak										
Sutter St. Crosswalk	18	39	0.60						9	B
Northbound				72	14.4	5.8	.32	17-29		
Southbound				266	53.2	21.3	1.18	64-107		
Sansome St. Crosswalk	15	34	0.60						10	B
Westbound				45	18.0	7.2	.48	22-36		
Eastbound				115	23.0	9.2	.61	28-46		

[1]Flows were projected by adding the project's impact to the existing flows, less current pedestrian generation from project site (17.1% of projected flows)

estimate has been reduced by 41 person trips from 667 to 636. Thus, the projected ridership has been reduced according to the existing share of riders on lines within 2000 feet of the new project. The cumulative impact of all downtown development in 1983 is expected to add 7151 new riders to the MUNI system. The proposed project would add 636 trips, or 8.9% of the total projected increase.

Table F-21 shows existing and revised 1983 projected load factors for the lines within 2000 feet of the proposed project. Without the proposed project the following lines will have load factors exceeding 1.0: 1, 1X, 2, 3, 11, 12, 14, 14GL, 15, 30X, 31, 31X, 38, 38L, 38aX, 45, 55, N. For lines 21 and K, the proposed project, along with other projects, would cause load factors to exceed 1.0. However, the initiation of the L and M MUNI Metro lines will increase overall capacity, and the projected load factor on the K line may be reduced.

TABLE F-21
MUNI PROJECTED LOAD FACTORS, OCTOBER 1980: LINES WITHIN 2000 FEET OF ONE SANSOME PROJECT SITE

LINE	PERCENT DISTRIBUTION OF PROPOSED PROJECT TRIPS[1]	PROPOSED PROJECT TRIPS	PERCENT LOAD FACTOR ATTRIBUTABLE TO PROPOSED PROJECT WHERE PROJECTED LOAD > 1.00	PROJECTED LOAD FACTOR EXCEEDING 1.0 FOR ALL PROPOSED PROJECTS
1	1.6%	10	.02	1.11
1X	2.4	15	.02	1.02
2	2.2	14	.02	1.19
3	2.0	13	.02	1.21
4	0.9	6	---	.79
5	3.9	24	---	.97
6	1.9	12	---	.92
7	1.3	8	---	.91
8	2.6	16	---	.73
9	2.1	13	---	.88
11	2.6	16	.02	1.13
12	1.9	12	.02	1.16
14	4.7	30	.02	1.19
14GL	1.0	6	.02	1.06
14X	2.5	16	.02	1.21
15	3.4	22	.02	1.14
17X	1.0	6	---	.86
21	2.6	16	.02	1.00
27	0.6	4	---	.65
30	4.1	26	---	.94
30X	3.2	20	.02	1.06
31	1.9	12	.02	1.19
31X	2.2	14	.02	1.06
38	3.8	24	.02	1.10
38L	2.5	16	.02	1.21
38aX	2.0	13	.02	1.05
38bX	0.8	5	---	.81
40X	1.2	8	---	.77

TABLE F-21 (Continued)
MUNI PROJECTED LOAD FACTORS, OCTOBER 1980: LINES WITHIN
2000 FEET OF ONE SANSOME PROJECT SITE

LINE	PERCENT DISTRIBUTION OF PROPOSED PROJECT TRIPS[1]	PROPOSED PROJECT TRIPS	PROJECTED LOAD FACTOR ATTRIBUTABLE TO PROPOSED PROJECT WHERE PROJECTED LOAD > 1.00	PROJECTED LOAD FACTOR EXCEEDING 1.0 FOR ALL PROPOSED PROJECTS
42	0.9	6	---	.96
45	2.4	15	.02	1.14
55	5.7	36	.02	1.10
66	0.7	4	---	.62
71	1.5	10	.03	1.26
72	1.1	7	.02	1.15
80X	1.7	11	---	.90
J	3.1	20	---	.81
K (L,M)	12.1	78	.02	1.00
N	8.0	52	.02	1.07
TOTALS	100%	636[2]	(23 lines exceed 1.00 load factor)	

[1]Same as percent of existing ridership to total ridership

[2]Reflects revised total. Original One Sansome estimate was 667 trips.

Source: San Francisco Department of City Planning, Guidelines for Environmental Impact Evaluation: Transportation Impacts: June 1980, Attachment 3 (revised October 1980).

DONALD BALLANTI
METEOROLOGICAL AND
ENVIRONMENTAL CONSULTANT

9 October 1980

John Sanger
John Sanger Associates
15 Beaver
San Francisco, CA

Subject: Wind Impacts of the Revised Design for the 1 Sansome Building, San Francisco, CA

Dear Mr. Sanger:

At your request I have reviewed the plans for the latest design of the 1 Sansome Building and the wind tunnel study prepared by Environmental Impact Planning Corporation on the previous design. The proposed design is about 18 feet shorter than the previous design, has a similar orientation, and has about the same diagonal and horizontal dimensions. The wind effects of this new design should be very similar to that of the original design, so that the impacts described in the E.I.P. report should apply to the new design.

The preservation of the Crocker Bank facade along Sansome Street would be a new element in the project that would affect wind. The facade would reduce winds below the values shown in the E.I.P. report along Sansome Street adjacent the site and within the plaza. It is not possible to quantify the effectiveness of the facade in reducing winds without further wind tunnel testing.

I hope that you will find this information useful. Please call if you have any questions.

Sincerely,

Donald Ballanti

Donald Ballanti,
Certified Consuting Meteorologist

1424 Scott Street • El Cerrito, CA 94530 • (415) 234-6087

APPENDIX G

MICROCLIMATE IMPACT STUDY ON THE PROPOSED #1 SANSOME STREET PROJECT

San Francisco, California

Revised
September 1980

ENVIRONMENTAL IMPACT PLANNING CORPORATION
319 Eleventh Street
San Francisco, California 94103

(415) 626-9034

CONTENTS

I. INTRODUCTION

Architects, engineers, and city planners designing urban structures are limited by the lack of information on wind effects due to structures, such as discomfort for pedestrians and wind-caused mechanical problems with doors, windows, and ventilating systems. Once a structure is built, remedial measures (if they exist at all) are usually expensive.

It is virtually impossible to anticipate, by analysis or intuition, the winds that will be caused by a structure, as they are determined by complex interactions of forces. Fortunately it is possible to predict the wind patterns and pressures around structures by testing scale models in a wind tunnel that can simulate natural winds near the ground. This allows the designer to foresee possible environmental and mechanical problems and alleviate them before the building is erected.

Data from wind tunnel tests can be combined with climatological data in analysis of the effect of a proposed structure on pedestrians in terms of human comfort. The frequency distribution of wind strengths at pedestrian level, combined with temperature data and shadow patterns of the proposed structure and its surroundings, can be used to forecast comfort at pedestrian levels.

II. SUMMARY

A wind tunnel investigation was carried out on models of the site as it now exists and as it would be under two alternative development plans. The proposed project was found to have a localized effect on winds. Winds along Sutter Street were changed, while winds elsewhere near the site remained essentially as they currently exist. Both increases and decreases were found to occur along Sutter Street. The range of windspeeds along Sutter Street would be similar to that currently existing.

The building was found to affect Sansome Street and the extreme northwest corner of the Crown Zellerbach Plaza with additional shadows in all seasons except winter.

Concept A and Concept B were found to have identical impacts on winds and shadows.

The proposed public areas east and west of the proposed building were found to have low to moderately low winds. The shadow pattern analysis showed that these areas would be shaded at 1:00 p.m. all year.

III. BUILDING AND SITE DESCRIPTION

The proposed project site is located in downtown San Francisco on Sutter Street and the corner at Sansome Street. The site is currently occupied by Crocker Bank and offices at the 58 Sutter Street building.

The proposed project Concept "A" would entail the construction of a 567 foot, 42 story building to replace buildings at 58 Sutter and the Crocker Bank (#1 Sansome Street). Concept "B" would entail construction of a 639 foot, 47 story tower. Floors 37 through 47 would consist of a more slender tower.

The area surrounding the site is urbanized and contains many high rise buildings.

IV. MODEL AND WIND TUNNEL FACILITIES

Model

Scale models of the proposed building phases and alternatives and the structures surrounding the area for a distance of several blocks were constructed of polystyrene and urethane foams at a scale of 1 inch equals 30 feet. Building configurations and heights were obtained from the Sanborn maps at the San Francisco Department of City Planning.

Wind Tunnel Facilities

The Environmental Impact Planning Corporation boundary layer wind tunnel was designed specifically for testing architectural models. The working section is 7 feet wide, 43 feet long, and 5 feet high. Wind velocities in the tunnel can be varied from 3.5 mph to 13 mph. The flow characteristics around sharp-edged objects, such as architectural models, are constant over the entire speed range. Low speeds are used for photographing tracer smoke, high speeds for windspeed measurements.

Simulation of the characteristics of the natural wind is facilitated by an arrangement of turbulence generators and roughness upwind of the test section. These allow adjustments in wind characteristics to provide for different scale models and varying terrain upwind of the project site.

Measurements of windspeed around the model are made with a hot-wire anemometer, a device that relates the cooling effect of the wind on a heated wire to the actual windspeed. The flow above the city is measured by a Pitot tube connected to a micro-manometer. The Pitot tube and micromanometer measure directly the pressure difference between moving and still air. This pressure difference is then related to the actual windspeed. Flow visualization is achieved by use of floodlit smoke in conjunction with a 35-mm. camera.

V. TESTING METHODOLOGY

Simulation of Flow

The most important factors in assuring similarity between flow around a model in a wind tunnel and flow around the actual building are the structure of the approach flow and the geometric similarity between the model and the prototype. A theoretical discussion of the exact criteria for similarity is not included in this paper, but may be found elsewhere (Cermak, 1966, or Cermak and Arya, 1970).

The variation of windspeed with height (wind profile) was adjusted for the scale of the model and the type of terrain upwind of the site. The profiles used were those generally accepted as adequately describing the flow over that type of terrain (Lloyd, 1967).

Testing Procedure

The windflow characteristics of the site in its present state were investigated to ascertain the present wind environment. Windspeeds and wind directions at specified points throughout the site were measured and recorded. Wind direction was measured by releasing smoke at each point and recording the direction in which the smoke traveled. Windspeed measurements were made at the same points, at a scale height of five feet above the ground. A hotwire anemometer probe is required to make these measurements within a fraction of an inch of the model surfaces. The probe is repeatedly calibrated against the absolute reading of a Pitot tube and micromanometer. Velocity readings close to the model are generally accurate to within 10% of the true velocity.

Measurements for building phases and alternatives are made by keeping the probe in place while replacing the existing buildings with each proposal under consideration.

Before and after each test run, a calibration measurement was made above the model. The purpose of these measurements was to relate the wind tunnel measurements to actual wind records from U.S. Weather Service wind instrumentation located on the Federal Building at 50 Fulton Street.

VI. TEST RESULTS AND DISCUSSION

Tests of windspeed and wind direction were conducted for 2 wind directions.

Measured windspeeds are expressed as percentages of the calibration windspeed, which corresponds to the actual windspeed at the San Francisco Weather Station. Thus a plotted value of 52 means that the measured windspeed is expected to be 52% of the windspeed recorded by the Weather Service when winds are from that particular direction.

The plotted values can be interpreted in terms of general "windiness" using the scale below. This scale is subjective and is based on information gathered from similar studies in San Francisco.

Velocity	Percentage of calibration windspeed
Low	0-0.19
Moderately low	0.20-0.29
Moderate	0.30-0.49
Moderately high	0.50-0.69
High	0.70-1.00
Very high	>1.00

> = greater than

It should be noted that the plotted values are not actual windspeeds, but ratios. Thus a point having a "very high" windspeed would still experience light winds on a near-calm day. Likewise, a point found to have "low" winds could experience significant winds on a windy day.

Wind direction is indicated by an arrow pointing in the direction of flow. Where wind direction fluctuated, 2 arrows representing the principal flow directions were plotted.

Areas of fluctuating winds are normally turbulent, as are areas of spiraling motion; the latter are denoted by curved arrows.

Northwest Wind

Northwest winds occur 12 to 39% of the time in San Francisco, depending on the season. (In meteorology, a northwest wind blows from the northwest.) Northwesterly and westerly winds are the most frequent and the strongest winds at all seasons in San Francisco. Northwest winds exceed 13 miles per hour 35% of the time and 25 miles per hour 3% of the time in summer. (These wind speed categories are used because wind frequency data is broken down into categories of 4-13 mph, 13-25 mph, etc.) Wind frequencies and speeds are lower in spring, fall, and winter.

Existing site conditions under northwest winds are shown in Figure 1, page 9. Windspeeds near the proposed site vary from low to moderate, with the strongest winds occuring at the Montgomery-Bush Street intersection and the north end of the Crown Zellerbach Plaza. Figure 2, page 10, shows conditions for Concept A. The project's impact would be restricted to Sutter Street, elsewhere speeds do not change. Along Sutter Street winds would increase in some areas and decrease in others. Winds would remain in the low to moderate category. The newly-created public areas adjacent to the proposed building would have low and generally turbulent winds. Windspeeds would not be high enough to raise dust.

Concept B (Figure 3, page 11) would have essentially identical impacts to those of Concept A. Winds on the plaza west of the proposed building would be slightly less, however.

West Wind

West winds occur between 15 and 40% of the time, depending on the season. They exceed 13 miles per hour 29% of the time and 25 miles per hour 7% of the time in summer. Wind strengths and frequencies are somewhat lower in spring, fall and winter.

Figure 4, page 12, shows existing conditions under west winds. The strongest winds near the proposed site are found along Sutter Street, where winds are moderate to high. Sansome Street and Crown Zellerbach Plaza are sheltered by existing upwind buildings, with low to moderately low speeds. Along Bush Street, winds range from low to moderately high, Montgomery Street has generally moderate windspeeds.

The major impact of proposed Concept A would occur along Sutter Street. On the southwest corner of the Sansome-Sutter Streets intersection speeds would increase from moderate to moderately high. (See Figure 5, page 12.) Elsewhere, speeds would be changed by no more than a few % from existing speeds, within the error of the measurement method.

The newly created pedestrian areas to the east and west of the proposed building would have low winds, although they would be turbulent.

Concept B would have the same impact as Concept A: generally no change in winds except for the southwest corner of the Sansome-Sutter intersection.

VII. MITIGATION MEASURES

There are 2 types of mitigating measures for wind. The first is to make major design changes to reduce winds near the project, such as different building orientations or changes in size or shape.

Because the proposed project does not significantly alter the existing wind environment, major design changes do not appear necessary.

The second type of mitigation measure involves additions to the project that would provide local shelter for pedestrians. Small structures such as kiosks for newspaper or flower vendors, telephone booths, and shelters at bus stops can serve in this way. Similarly, street trees and other vegetation can function as windbreaks. These types of measures would be appropriate along Sutter Street, where winds with or without the project are high.

Increased shadows during spring, summer and fall, affecting Sansome Street and the Crown Zellerbach Plaza, could be mitigated by building only on the western half of the site.

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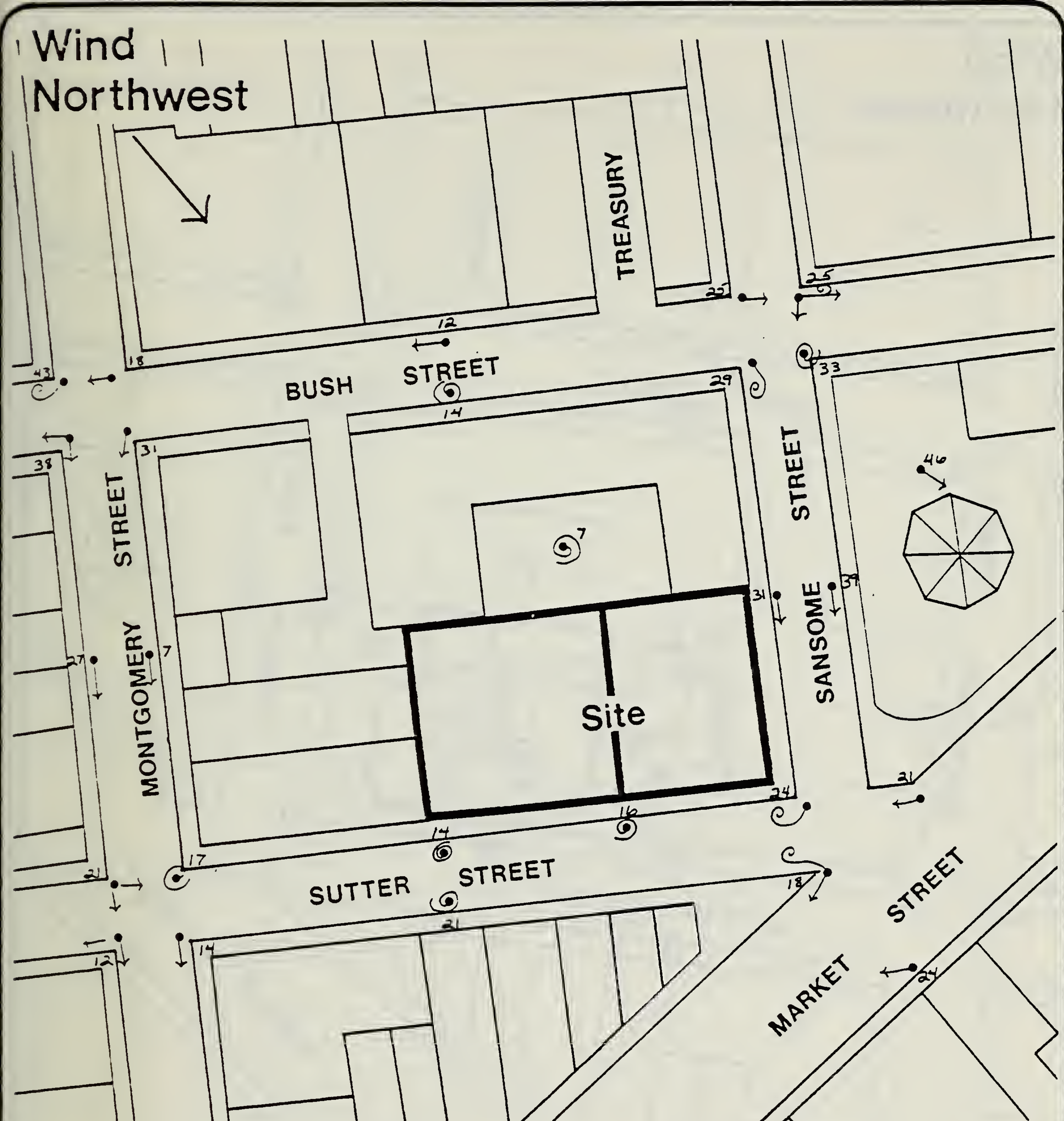
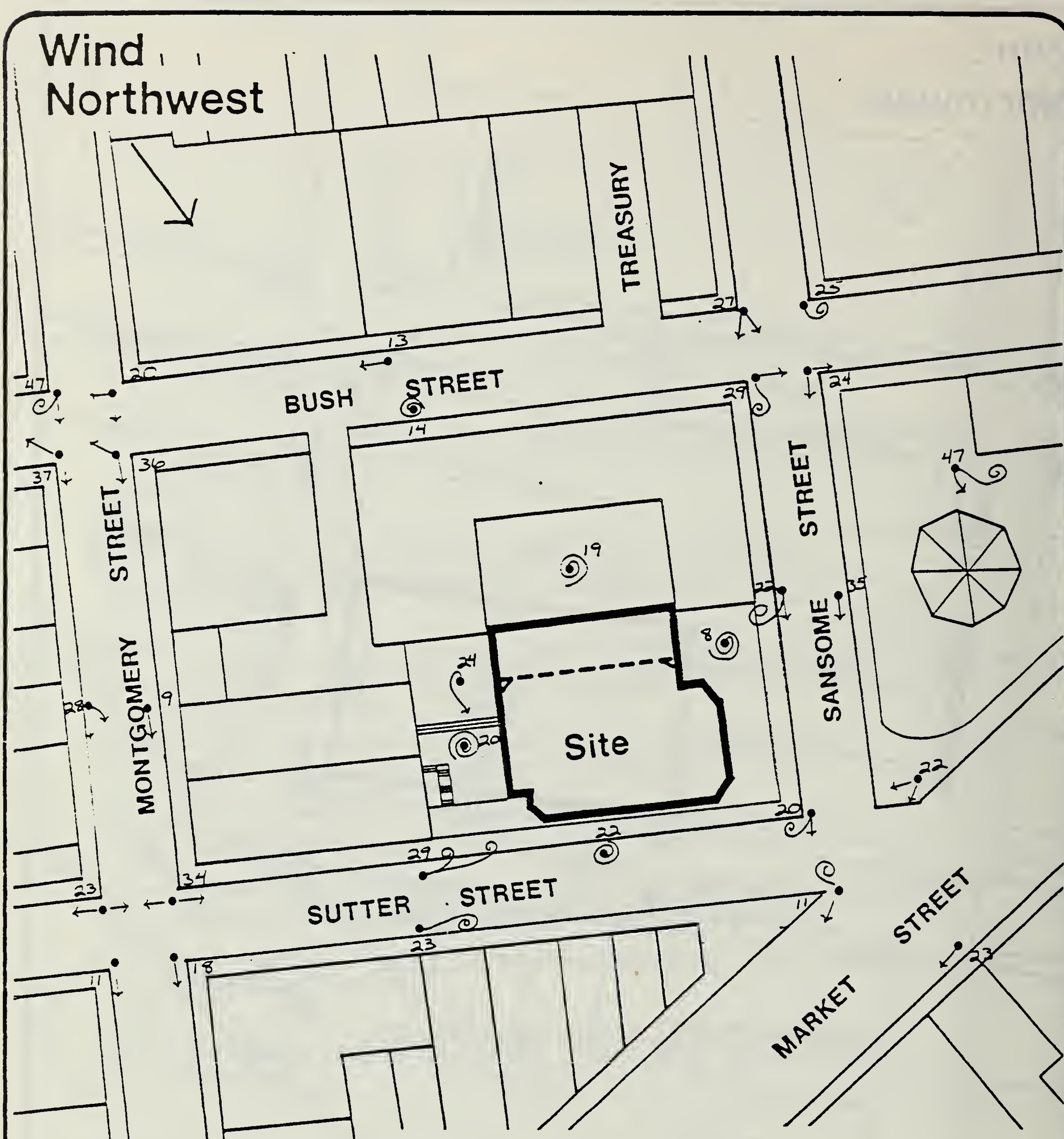


NOTE:
Numbers are windspeed, as a percent of Reference Speed (see text, page 4).

Existing Site, Wind-Northwest

North
Not to Scale

Figure G1

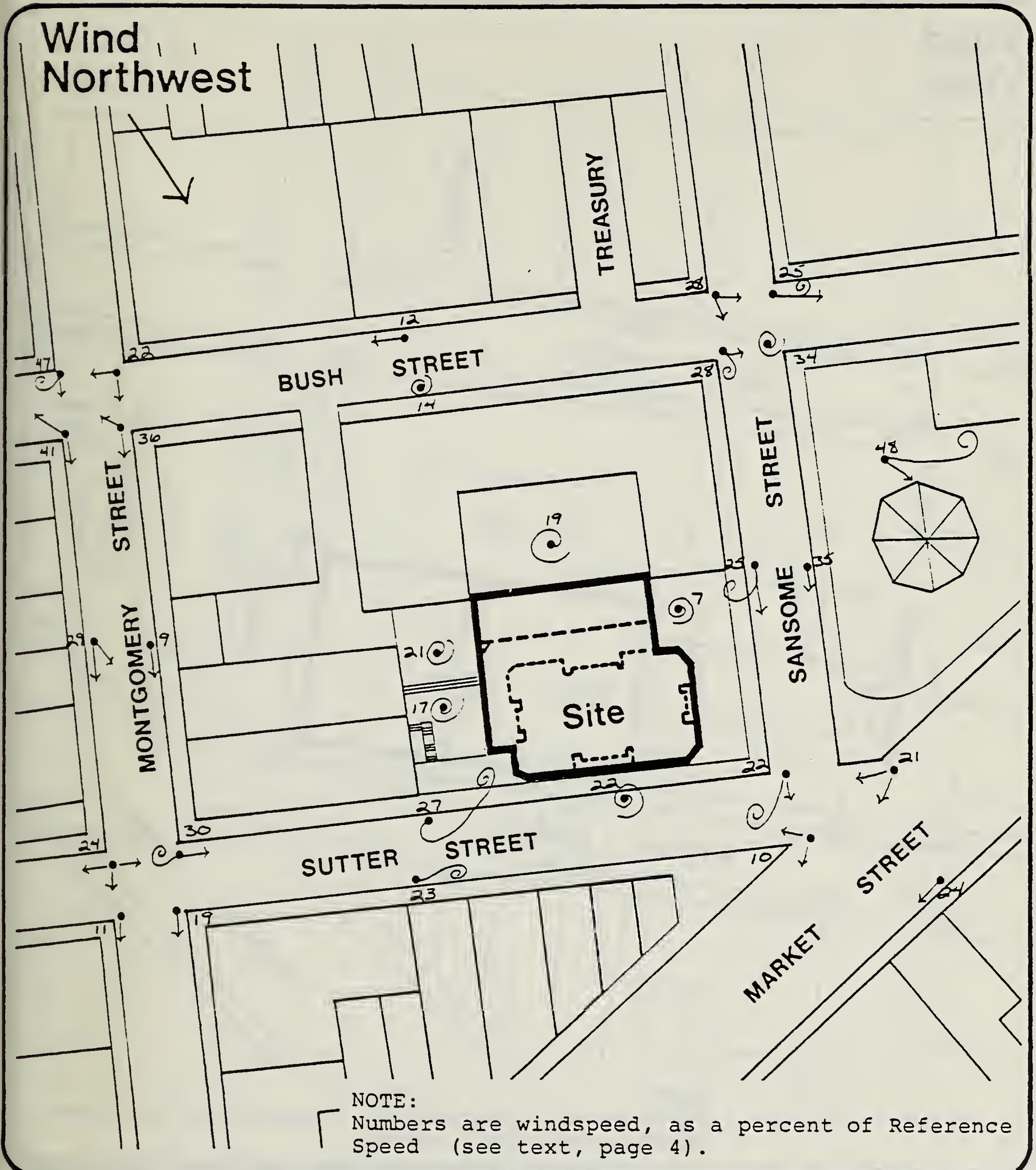


NOTE:
Numbers are windspeed, as a percent of Reference Speed (see text, page 4).

Concept A, Wind-Northwest

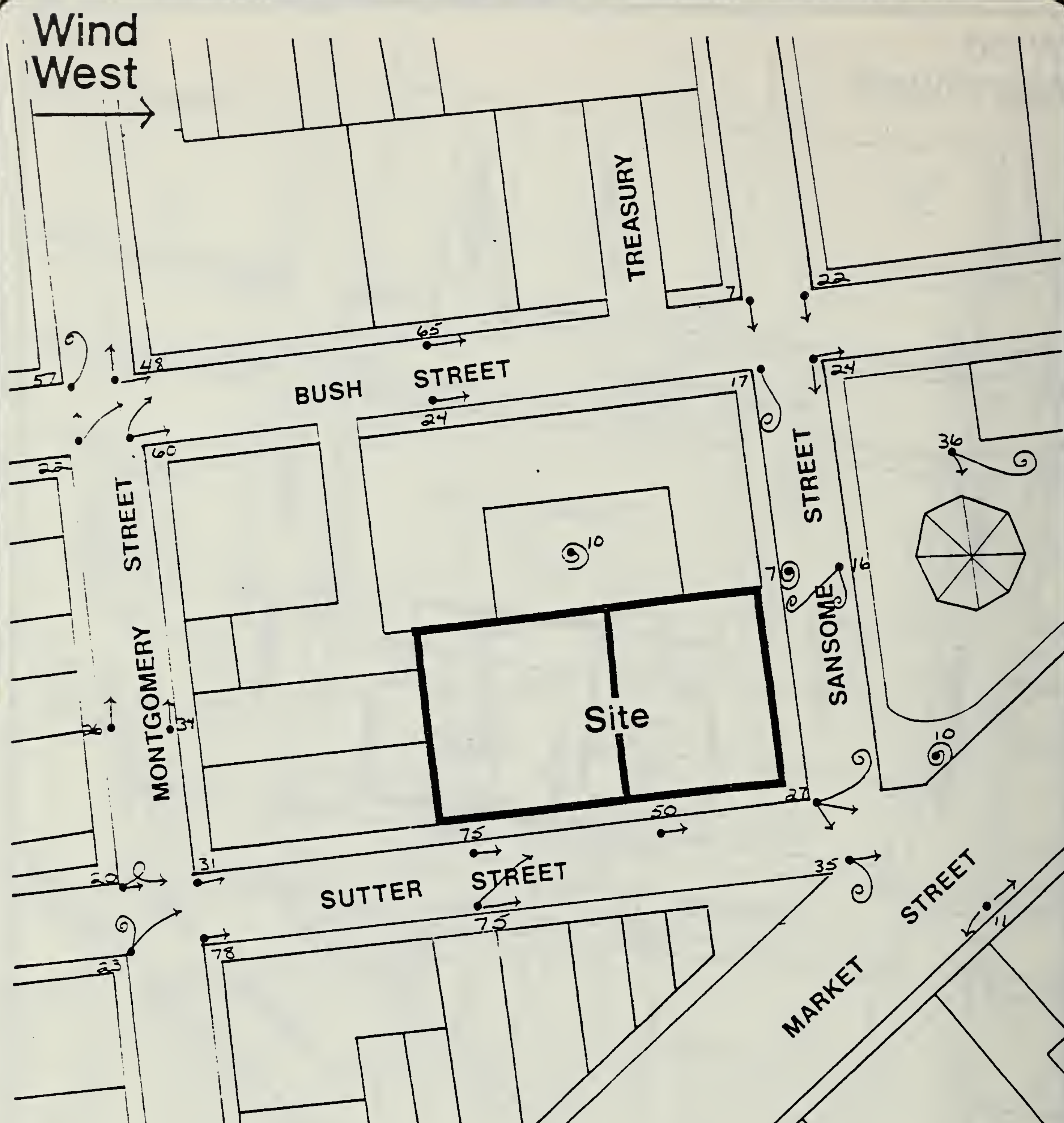
North
Not to Scale

Figure G2



Concept B, Wind-Northwest

Figure G3

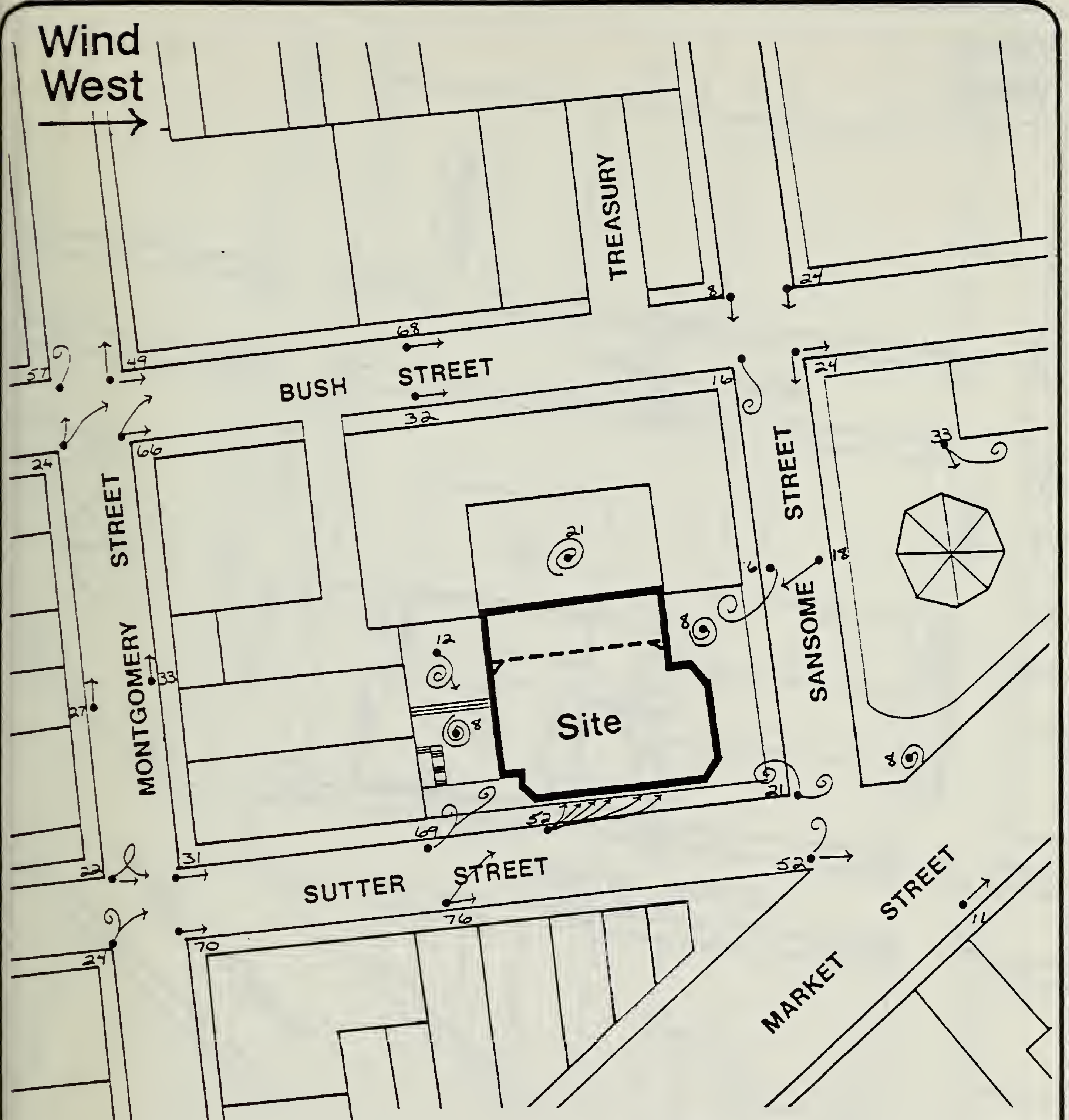


NOTE:
Numbers are windspeed, as a percent of Reference Speed (see text, page 4).

Existing Site, Wind-West

North
Not to Scale

Figure G4

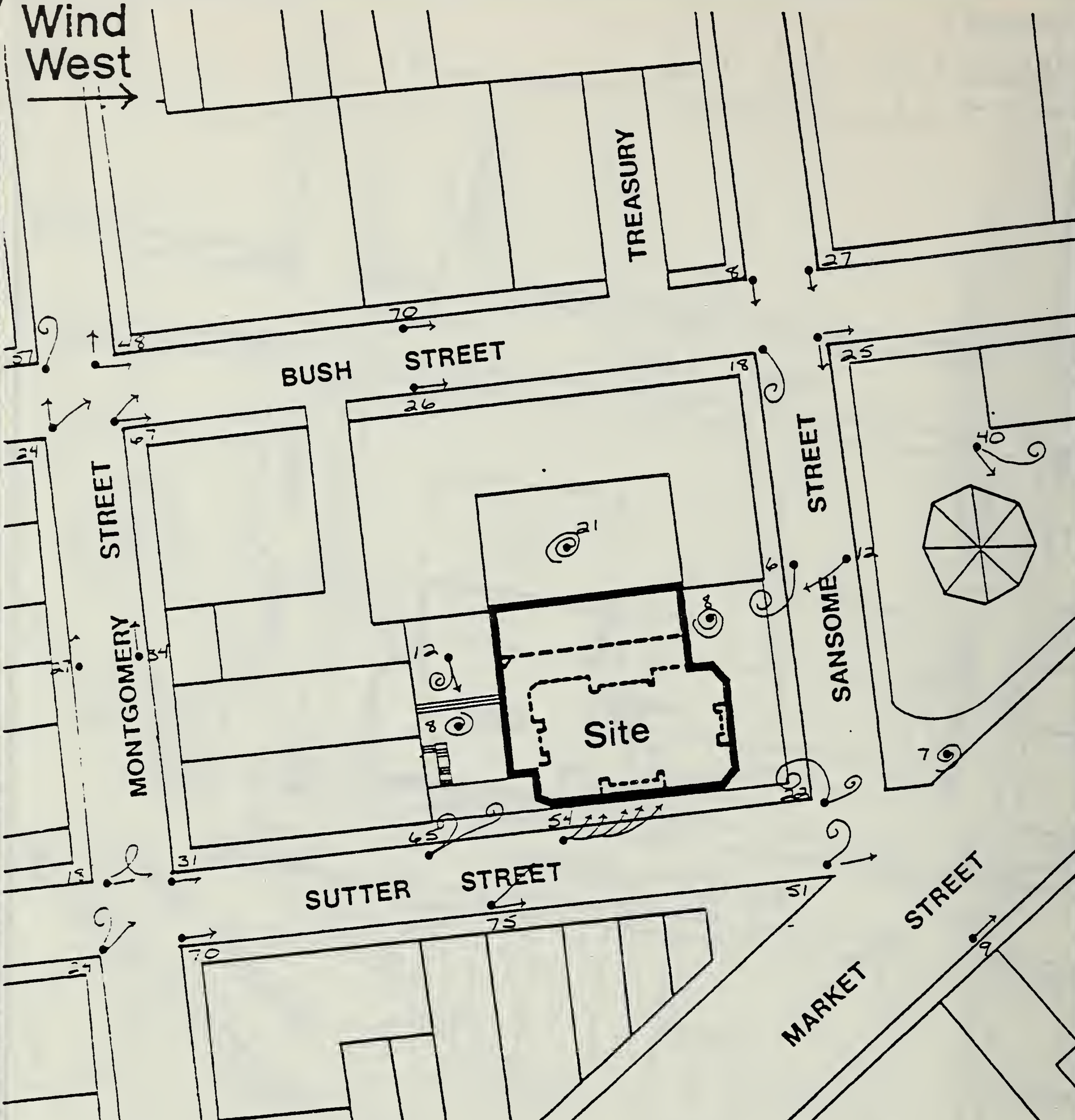


NOTE:
Numbers are windspeed, as a percent of Reference Speed (see text, page 4).

Concept A, Wind-West

North
Not to Scale

Figure G5



NOTE:
Numbers are windspeed, as a percent of Reference Speed (see text, page 4).

Concept B, Wind-West

North
Not to Scale

Figure G6